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CHALLENGES of the SIXTIES

Critical Issues and Decisions, Series II

Stephen K. Bailey
Donald N. Michael
Harold Taylor
Henry Steele Commager
Peter H. Odegard
William M. Birenbaum
Wendell Johnson

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Edited by Harold F. Breimyer

GRADUATE SCHOOL . U. S. DEPARTMENT OF AGRICULTURE

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PREFACE

This publication presents six lectures of the second Critical Issues and Decisions series sponsored by the Graduate School of the U. S. Department of Agriculture. The lectures were delivered in the Department's Thomas Jefferson Auditorium during February and March 1963. They were warmly received by audiences totaling nearly 3,000 government officials and others, including some high school and college students.

The Critical Issues and Decisions Program is a small group discussion course inaugurated by the Graduate School in 1962. The lectures printed here were integral to 6 weeks of seminar discussions participated in by 24 career executives, most of them in the Federal service but a few in private employment. The program is designed to offer liberal education to executives in order that they might develop a more comprehensive approach to problem solving in executive administration.

The Graduate School was prompted to offer the Critical Issues and Decisions Program by its awareness that most career executives, Federal as well as private, are highly specialized individuals. It is an anachronism that the very success in a specialized field which propels a career person upward makes it difficult for him to attain the broadening and liberalizing experience and education so valuable to effective administration.

The scholars whose lectures are reproduced here are nationally recognized leaders in their respective fields. They contributed to the Critical Issues and Decisions Program

not only by delivering the lectures but also by conducting followup seminar discussions.

Also a part of the Critical Issues and Decisions course was a parallel series of seminars based on carefully selected readings on the subjects of the lectures.

The Graduate School is pleased to share the lectures with a larger audience by making this publication available.

JOHN B. HOLDEN

Director, Graduate School

ACKNOWLEDGMENTS

By its nature a group activity, the Critical Issues and Decisions Program involved team effort. Above all we are indebted to the visiting scholars whose insights and inspiration are reflected in this publication. Jerold N. Willmore of the Graduate School staff was the overall coordinator of the program. The original and continuing planning committee consists of Theodore Taylor, Smithsonian Institution; Charles E. Kellogg, Foster E. Mohrhardt, and Loyd M. LaMois, U. S. Department of Agriculture; Chester L. Neudling, U. S. Office of Education; John L. Nolan, Library of Congress. This group helped plan the program and recommended the visiting scholars. For the unselfish contribution of their time and guidance the Graduate School is especially indebted.

All books published by the Graduate School are reviewed by the Graduate School's Committee on Publications. This committee, made up of information specialists and editors, renders invaluable service and advice in each phase of production. The members are Theodora E. Carlson, U. S. Office of Education; Jerome H. Perlmutter, Department of State; Peter H. DeVries, Forest J. Hall, Robert T. Hall, Harry P. Mileham, D. Harper Simms, and James McCormick (Chairman), U. S. Department of Agriculture. Vera Jensen, of the Graduate School staff, works with this committee and is responsible for the production and sale of publications.

The lectures in this publication were transcribed from tape recordings and, through consultation with the lecturers, were edited by Harold F. Breimyer of the Agricultural Marketing Service. The manuscript was transcribed and typed by Mrs. Alma Holland. William Everard was responsible for copy preparation and proofreading.

I wish to express my sincere gratitude to all of these people for their service in the production of this publication.

J. B. H.

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ECONOMIC GROWTH AND OUR RESPONSIBILITIES ABROAD

Stephen K. Bailey

Dean, Maxwell Graduate School of Citizenship and Public Affairs, Syracuse University

We are by no means the first generation of mankind to be concerned with the problem of economic growth and responsibilities abroad. Phoenecian traders; Roman proconsuls; Venetian merchants; Portuguese, British, Spanish, and French mercantilists; and the imperial powers of the 19th and 20th centuries could all have commissioned essays on this subject.

What is new in this era is the insistent question of how economic growth can be promoted in various parts of the world, not to bring rich economic dividends to already great powers, but to bring a rising standard of living and increased human dignity to emerging world powers. We are concerned with economic growth abroad, not to exploit new wealth for ourselves, but to create new wealth for others.

We do this, in part, from a faith that a more prosperous world will be a more orderly world—or more precisely, a world in which disorders can be more easily contained and constructively channeled. In part, we are interested in economic growth in the newly developing world because we wish to maximize human freedom and personal fulfillment across the face of the globe. Poverty and human inutility are productive of neither dynamic order, nor freedom, nor personal fulfillment. A rising standard of living is an im-

portant social goal in its own right; it is equally important when viewed as a means toward achieving other even more fundamental social and individual goals.

It is a mistake, I think, to attempt to justify American international aid and trade solely on the grounds that the domestic economic interests of the United States are thereby significantly served. Certainly, in an aggregate sense America could divest itself of its international economic activities without impossible strain. Our exports today, for example, account for only 5 percent of our total GNP. And even though selected imports are crucial for some industries and for the satisfaction of our breakfast and drinking habits. adaptation, substitution, and invention could ultimately take up whatever slack might be created by a large contraction in world aid and trade if this were forced upon us. Domestic agriculture would face a special and difficult problem of adjustment. But domestic agriculture is going through a technological wringer anyway, and presumably could adjust even more rapidly if it were forced to. Our way of life would be changed, and in many key areas badly disjointed, if aid and trade programs were to be seriously cut back: but this is not the main issue.

The real justification for American overseas responsibilities in the economic field is political and moral with only a marginal relationship to economic growth and productivity in the United States itself. The crucial issue to understand is America's long-range stake in the political and moral progress of mankind. As a forthcoming AID statement puts it, "the broad objective of aid, as of all U. S. policy, is political." We do not indulge in foreign relations for the fun of it, although some fun is involved. We concern ourselves with the rest of the world on twin grounds: first, after two world wars and Korea, and an extensive experience in the cold war, we have learned that distant events can have unhappy proximate repercussions; and two, that in a closely knit world

society in which the few are prosperous and the many are miserable, happiness and callousness are not compatible attitudes. It is ultimately for these reasons that we have developed what the Herter Committee on Foreign Affairs Personnel refers to—a little unfortunately I feel—as an "arsenal of instruments." Among these instruments of foreign policy are "all the tools of traditional diplomacy; international law; intelligence; political action; technical assistance and various types of economic aid; military aid programs; information and psychological programs; monetary policies; trade development programs; educational exchange; cultural programs; and more recently measures to counter insurgency movements."

To say that we use all of these instruments for selfish American purposes is to underrate the moral propensities of free men. Prudence and compassion are not antonyms. In this case they are complementary. We want the good life for others as well as ourselves. This is morally distinguishable from the statement that we want the good life for others because we want it for ourselves. I hope and trust that increasingly we can base support for our foreign policies upon love for neighbor as well as love for self. I do not accept the proposition that Congressmen are so benighted that they can be moved only by narrow appeals to national self-interest. True patriotism is a positive virtue. It is love of country. That love is not served by hatred or callousness towards those beyond our borders.

I have dwelt a bit on moral attitudes because I consider them fundamental. Matthew Arnold once noted that it is not "the machinery employed, but the spirit we are of that binds us to others." The success of our private, as well as public, enterprises abroad—granted an inevitably uneven course—will depend in the long run on what we are more than on what we do. This is one reason why the conquest of domestic problems like the race issue, unemployment, education, the problems of the aged, and urban blight is so important. When we are introduced abroad as "Americans," if we deserve respect as a nation, we increase the possibility of personal effectiveness.

With these homilies out of the way, let us turn to the central issue of this paper. Let me put the question in its more involved but more precise way. In attempting to increase the economic growth and productivity in the newly developing nations of the world, is the United States government properly organized to carry out these responsibilities?

The key word in this question is "organized." Organization suggests many things, but above all it suggests arrangements, relationships, coordinated activity for accomplishing goals. The more complex the goals, the more complex the organization. Since the United States has many and sometimes conflicting goals abroad, it would be naive to suggest that our overseas arrangements can be neat and unambiguous.

The President, for example, has made it clear that the ambassador is the top administrative and executive officer for the United States Government abroad. But this hardly settles questions of status and coordination when four United States ambassadors exist simultaneously in Paris, each with a separate function. Nor does the primacy of the ambassador really settle problems of intra-mission relationships created by the presence of MAAG or CIA in a number of tension-filled areas. In the economic field alone, ambassadors are often in imperfect communication with Washington; or with AID, Peace Corps, and the various functional attachés from Commerce, Agriculture, Labor, and Defense within the overseas mission itself. Bilateral and multilateral operations of other nations or of the specialized agencies of the United Nations further compound the complexities. Private philanthropy, education, missionary activity, and business add a final ingredient of "limited coordinatability"

—if there be such a term. Even when communication in a formal sense is relatively good, effective program coordination is frequently lacking—sometimes because the host government itself has not been able to jell its own priorities in relationship not only to the U. S. AID effort, but to its own economic programs, and to the various multilateral and bilateral activities with which it must wrestle. It is one thing for an ambassador to know that programs are out of phase, it is quite another for him to be able to harness divergent and only partly controllable energies in terms of goals which themselves are often clouded or contradictory. Presidents of the United States have been only moderately successful at the coordination game at home. To expect greater success from our ambassadors abroad is to misread both their power and their context.

No artificial organizational devices exist for settling these kinds of problems. Some structural or procedural changes which I shall elaborate in a moment might improve matters, but every structural or procedural change aimed at tighter coordination exacts its own price. For those who say the answer is better paper communications, for example, I should only remind that the road to administrative hell is paved with ditto masters. If everything flows across the ambassador's desk for operational clearance, the rate of flow is curbed by laws equivalent to those governing water in a pinched pipe. Energies expended for keeping track cannot often be spent for making tracks.

One of the great illusions in the administrative trade is that policy coordination is the chief function of a top executive or manager. The top job of top men is priority setting, largely in response to subordinate energies. This is a different kettle of fish altogether from relating everything to everything else. Outlandishly contradictory policies must, of course, be resolved if they are both of high priority; but a great deal of diverse and divergent business can be allowed if the ambassador is clear and forceful about matters at the top of his agenda. A pluralistic government like ours, for all I know, may be the last stronghold of free competitive enterprise. If so, let's make the most of it.

Parenthetically, in order to place the frequently alleged unbuttoned character of our overseas operations into a reasonable perspective, it may be useful to take a quick look at the monolithic "efficiencies" of our Soviet competitors.

Mr. Colin Legum, writing in *The Observer* of London about a year ago, tells the story of Ilyushin airplanes in Ghana. It seems that Ghana had hoped to replace Sabena Airlines which had been serving the Congo. To implement this plan, Ghana asked for and received a fleet of Ilyushins, complete with a hundred aircrew members and technicians from the Russians. But the Congo arrangements fell through, and Ghana was left with the Russian airplanes which turned out to be uneconomic. Additionally, the insurance on the planes had to be paid, as well as the costs of maintaining the Soviet experts. All of this happened while the planes were virtually unused and the Soviets were enjoying the beach.

Ghana did not have much greater success with the first gift of the Polish-Ghana Friendship Society. The gift was largely used clothing, including ear muffs. Mr. Legum points out that the Ghanaians never wear any second-hand clothing, let alone ear muffs.

Moving to Guinea, one finds a series of mistakes made by the Soviet bloc, which eventually caused the expulsion of the Soviet Ambassador in 1961. This is worthy of note, especially after the assiduous courting which Mr. Sekou Toure received from the Soviets. Among the problems in Guinea:

1. A snow plow was sent.

- 2. A Russian consignment of grain arrived rotten.
- 3. Several thousand bidets arrived.
- 4. Russians who had volunteered to run the Guinean diamond mines were apprehended smuggling diamonds back to Russia.
- 5. The Russian and Czech specialists who had been sent to run airport installations were unskilled and had to be replaced by Egyptians.
- 6. A printing plant built by East Germany had to be closed down because of equipment failures.
- 7. Conarky's power and water shortages were not alleviated by the efforts of Soviet bloc technicians.

In Asia, Soviet bloc efforts have been only partly successful. Undersecretary of State George C. Ball in 1961 told the Senate Foreign Relations Committee about a sugar mill which was provided to Indonesia by the bloc nations. It was, in Ball's words, a minor disaster. Erected after a year's delay, it broke down on its test run, and was out of commission for a year. Finally, Ball related the tale of the motor launch which was given to the leader of an Asian country by the Soviets. When it arrived at the end of the land-locked rail line, its voyage ended, the roads would not accommodate it for the move to the water.

Certainly, these scattered events do not mean that all Soviet bloc efforts in foreign assistance have failed. But they do mean that we are unwittingly perpetuating the myth of Soviet invincibility when we recite continuously American failures and Soviet successes in overseas operations.

The simple fact is that any country involved in the internal economic affairs of another country has a rough row to hoe. Discouragement and despair are endemic if we allow ourselves to be bamboozled by impossible standards of efficiency, and if we expect short-run miracles.

But to say that the job of organizing our responsibilities abroad for economic growth and development is difficult is not to say that certain improvements in structure and procedure could not help. There are, I believe, three crucial areas of organizational relationships which have been identified countless times in the past but which need continuing review and attention if we are to conduct our responsibilities overseas with reasonable efficiency. The first of these is the relationship of chiefs of mission to their superiors at home and to their governmental subordinates and coordinates in the field. A few points are becoming increasingly obvious. They can be illuminated by asking a series of questions. For example, are most of our ambassadors (career and noncareer) fitted by education, experience, and temperament to ride herd on a dizzying variety of functional specialists within their own missions? If not, are they properly staffed at the top level to effect intelligent prioritysetting and coordination? Conversely, are functional specialists properly trained or briefed by their Washington backstoppers on the necessity of lateral and horizontal policy clearances in overseas missions? Does the Peace Corps speak to AID? Should CIA or the military services live higher off the hog than the ambassador and his first, second, and third secretaries? More than one casual outsider has found himself in a catalytic role of relating one American government activity abroad to another, or to Washington. I remember one embarrassing moment in East Africa when, as a private educator, I reminded an AID representative of a cultural affairs activity of the Department of State about which the AID man had no knowledge, but which directly affected the AID program. The embarrassment came from the fact that the catalytic action took place inadvertently in front of a representative of the host government who must have secretly rejoiced that even great governments experience administrative hiatus. The issue had arisen because of a communications breakdown both in Washington and the field and between Washington and the field.

There is no easy solution to this kind of problem, but some forward motion could be effected if mission chiefs and functional subordinates and coordinates had greater understanding of the creative operational utility of such administrative instruments as budgets, personnel systems, and O and M. It has been popular in recent years to discount staff services in favor of program and policy-making, as though these were, in reality, separate functions. Managerial tools exist-or at any rate, should exist-to help in the priority-setting and coordinating functions of policy-making. Too frequently in our overseas missions staff units are looked upon as necessary evils, established to keep accounting, supplies, and car-pool functions from interfering with the high task of policy-making. Administration has become peripheral rather than an integral concept. As a result, policy horses have run in all directions, while administrative talent has been assigned to clean the stables and feed the animals. Unless keen minds are imposed on the reality of disorder, disorder will continue to be the rule rather than the exception. A broader training of our potential mission chiefs along the lines suggested in the Herter Committee report would help. And so would the more effective use of talented administrative staff in the offices of the mission chiefs abroad and agency heads at home.

In some countries an improvement in technical communications and in interoffice propinquity would facilitate lateral communications in the field and horizontal communications with Washington. An open invitation to AT&T and the Bell System to improve telecommunications within countries and between countries might significantly improve the conduct of our overseas activities. When it takes 20 minutes in a developing nation to place one telephone call, which then cannot be clearly understood because of static, no great incentive exists for frequent interoffice communications. When the processing of messages to Wash-

ington by cable, wireless, or pouch is often more cumbersome than a 24-hour flight home, the use of clogged communications channels is bound to be a discouraging exercise. Patience may be a virtue, but enforced patience is not productive of administrative accomplishment.

The second area of continuing concern is the relationship of American overseas missions to the planning activities of host governments. Little has been written on this crucial issue and my remarks can only be brief generalizations from a few personal exposures to American operations in Africa and Asia.

If economic planning is not looked upon as simply something a local planning staff prepares, but as power-related policy-making at the top levels of government; and if, further, the role of American economic and technical assistance is crucial to the success of a national plan; then effective policy linkages between the American mission and top centers of political power in the host country are imperative. We rightly set criteria which must be observed by the recipient nation if American assistance is to be given. For example, decisions on the disposition of food or of counterpart funds under PL 480 are necessarily joint decisions. Military aid, which is inevitably related to economic programing, is often based upon matching endeavors by the host country. The fact is that American missions abroad must justify the soundness of their economic activities to a restive bureaucracy and an often skeptical Congress in Washington. A watchdog function over the use of American aid is consequently a necessary—if frequently distasteful mission activity.

Effectively relating the American mission to the economic planning activities of the host nation is one of the most complex and subtle diplomatic challenges of our time. Many newly developing nations need and welcome American aid; but they often resent the standards and conditions which American aid imposes. Now that our balance of payments problem has narrowed the possibilities of offshore procurement, new nations receiving our aid feel an increased and unwelcome dependency upon the United States. Differences between the American mission and the host government on matters of economic priorities are almost bound to exist.

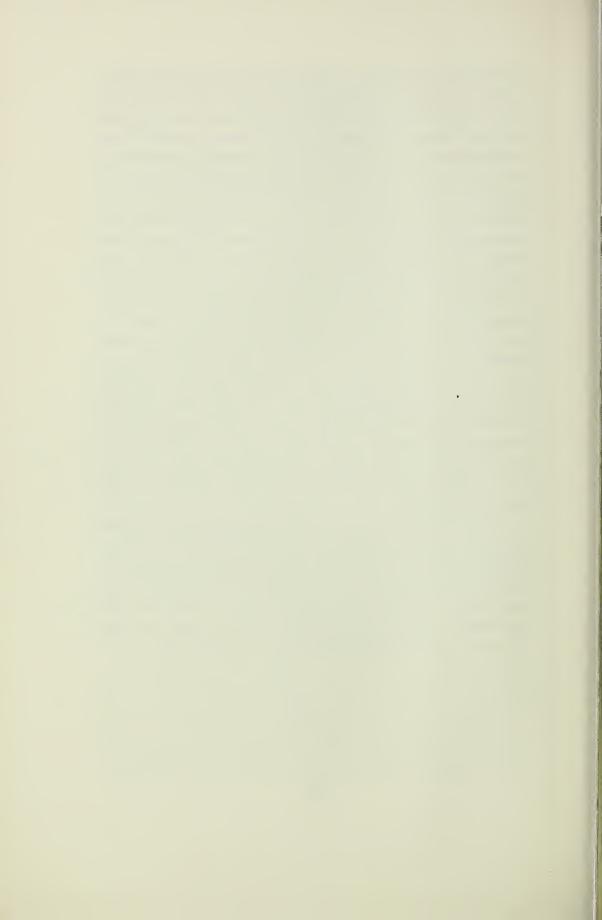
The major need here is twofold: first, that those from the American side who must negotiate with host governments on these matters be tactful and be sophisticated about the planning process and the structure of political and administrative power of the host country; and second, that both the United States Congress and the relevant executive agencies in Washington develop a far more precise and at the same time long-range foundation for American overseas commitments in the field of economic aid. We ask the host countries to do long-range planning involving our aid, when we ourselves have seemed incapable of generating our own long-range planning in the economic assistance field. If we open and close our financial accordian too often, congressional predictions of failure in our economic aid programs will be self-fulfilling. As my distinguished predecessor once wrote, "We know in our hearts that we are in the world for keeps, yet we are still tackling twenty-year problems with five-year plans staffed with two-year personnel working with one-year appropriations. It's simply not good enough." On our problems of dealing with the planning activities of host governments, I can add nothing to Harlan Cleveland's eloquent summary. Fortunately, AID under new leadership is beginning to take this long-range planning function seriously.

The final area of acute concern is the relationship of American missions to other bilateral and multilateral aid agencies, public and private. This jungle is dense and virtually trackless. It is not uncommon in many developing nations for a score of different foreign agencies—national and international—to be involved in economic assistance. in addition to scores of private entrepreneurs. The consequent burden upon already strained new governments is sometimes staggering. The only possible escape seems to me to be to let United Nations country or regional representatives perform some kind of clearing house function for these multifarious sources of energy and possible assistance. The UN representative cannot, of course, control, but he can inform and analyze and recommend. Most developing nations need sources of external capital and technical assistance, but they frequently also need expert guidance on the relationship of one source to another. Here is a function which the United Nations might well perform with great value to the host country, as well as to the outsiders who are trying to be of help. It seems to me that the United States missions abroad could perform their economic aid functions far more efficiently with this type of UN assistance. The United States should also attempt through its membership in the specialized functions of UN to work towards coordinated planning in the headquarters staffs of multilateral agencies. There is much we could do to improve economic programing in the newly developing countries if our own representatives in FAO, ILO, WHO, UNESCO, the World Bank, and so on, could familiarize themselves with related programs of both the United States and the United Nations, and could bring that knowledge to bear upon their own agency's planning.

These three major areas of operational concern do not exhaust the list of problems which are inherent in those of our responsibilities abroad that relate to economic growth. But they seem to me among the most fundamental. Underlying all of them, of course, is the ultimate question of the home front. On this volumes could be, and have been,

written. Here I am almost prompted to place a moratorium on administrative reorganization. The great need is for continuity and stability in both organizational arrangements and programing. The basic issue is far more political than administrative. I am sure that the overseas programs of the several departments in Washington could be more effectively related to each other in the nation's capital—Agriculture to AID to Peace Corps to USIS to State to Defense, for example. But this is not the fundamental issue. Presidential leadership operating directly on Congress, and through public opinion on Congress, is urgently needed if our foreign aid programs are not to be slashed into ineffectiveness. Careful review, weeding out waste, cutting our losses where evident, and setting new and tight priorities for new ventures must be a continuous process. But urgent steps are needed to place our foreign economic activities upon a firm and long-range basis. We can expect neither intelligent planning abroad nor the recruitment of able Americans for foreign operations at home and abroad if the home-front psychology is that our help in economic growth abroad is always just about to be concluded or substantially cut back.

A tithe of less than 1 percent of our gross national product to permit economic growth abroad would be neither burdensome nor beyond our moral capacity—especially as military technology makes it possible for us to disestablish some of our military bases abroad. What we spend on foreign aid is a small price to pay for promoting dynamic order and individual fulfillment in a sorry world.



WORK, TECHNOLOGY, AND LEISURE IN THE AMERICAN SOCIETY

Donald N. Michael

Director, Peace Research Institute

Growing preoccupation with relationships between work, technology, and leisure and their implications for society derive from many sources. Certainly among the most pressing is an emerging appreciation that sooner or later our technological capacities will change profoundly the social myths and social standards defining the requirements and opportunities for work and leisure. Less work implies all sorts of questions about the social and personal value of the individual, and these make us anxious. For while we claim second place to none in our respect for the inherent value of the individual we also take second place to none in judging his value by what he does. Our new technology implies radical changes in the amount and kind of work we do—on the job, if we have one, and off it.

The most piercing technological stimulant to reexamine and plan anew for work and leisure is the enormous potential of automation and computers. Even their indirect effects will be enormous. For many of the other technologies that will affect our lives will themselves owe their very existence to the protean qualities of automatic material processing and symbol manipulating.

Worthy of emphasis, therefore, are questions about forthcoming relationships between work and leisure as shaped

Footnote references are listed at the end of the lecture.

by the influence of automation and computers. For convenience, the latter may be referred to by the more flexible and less awkward term of "cybernation," a word derived from "cybernetics," which is a set of concepts underlying the design and application of automation and computers. As a further author's choice, speculations henceforth will be limited to those believed meaningful over the next 20 years or so. At the present worldwide rate of social and technological change, to look beyond that period would lead to footless fantasying.

To restate briefly, the ways in which cybernation, work, and leisure will interact is the topic of our concern. But first the need for and potency of cybernation must be seen against the background of coming societal pressures. Some of these cybernation will make, some it will solve, but all of them will be worked out in good part in terms of how we deal with work and leisure. What seems clear is that the growing size and complexity of our civilization will require the growing use of cybernation to understand what is happening in sufficient depth and detail and fast enough to embrace the opportunities and avoid the problems. Production, distribution, analysis, planning-all of these will be preeminently mass or statistical problems requiring mass or statistical approaches to their solution. Cybernation must supply the techniques. From automation will come physical products in sufficient quantity and low enough price for our standard of living. By means of the computer, properly instructed and informed (that is, programed) a number of modes of reality can be tried out, exploring the influence of different factors in models and thereby simulating the consequences of pursuing one plan versus another—whether the plan be for a factory design, sales campaign, defense strategy, or tax cut. And it can produce results fast enough to apply them to the issues at hand.1

Cybernation will impel inquiry into other areas of study

and disciplines that are necessary to it and which hold some promise for helping to solve the problems of work and leisure styles which cybernation creates. There will be joint product from combined effort. In particular, social technology or social engineering will apply the social sciences, the mathematical and logical techniques of systems analysis and operations research, and the capabilities of the computers. Systems analysis and operations research have already made major changes in planning of new markets, the manufacture and distribution of products, the size of inventories, business strategies, the efficient linking of men with the machines they operate, and the structure of national defense. Our knowledge of the social and psychological nature of man is good and rapidly getting better now that complex models of behavior can be tried on computers to see if what is simulated on machines conforms to what people in fact do. As an example, on the basis of behavior models, computers have estimated with high accuracy the actual votes of groups of voters with differing social and economic backgrounds. The tasks of dealing with a growing population in an ever more complex world will necessitate the systematic accumulation of knowledge about society in order to fulfill its needs effectively and in time.

Little systematic knowledge has yet been acquired about the effects of automation and computers on work and leisure. As Floyd C. Mann of the Institute for Social Research at the University of Michigan has said, "In a society which can be characterized as increasingly industrial and perhaps in the initial stages of a new phase of industrialization, it is important to note that we are investing comparatively little to extend and deepen our knowledge of the times through which we are passing. The number of social research units devoting efforts to unraveling the multiple effects of the new technological changes on individuals, or

ganizational arrangements, and societies can probably be numbered on one hand."

In part, this is true because the growth of cybernation has been so rapid. Only in the last few years have people come to appreciate that the impact of cybernation on man and society may be so different from the impact of technology as to be not a mere difference in degree but a profound difference in kind. Moreover, systematic knowledge is limited because its acquisition will require detailed study over a long period of time and that time period is just beginning. Also, we have relatively little systematic knowledge on the effects of cybernation because cybernation cannot be studied in isolation. It is only one factor—if an extraordinarily important one-affecting a people exposed to high rates of both technological and social change. We can't hope to discern precisely the effects of cybernation as distinguished from those ascribable to the interplay of states of mind in an American society which to some appears solid and sure but to others is open to question and doubt.

And finally, in a complex society comprised of groups with different perspectives, varying preoccupations, and different views of the world and themselves, and differentially exposed to technological change, it is exceedingly difficult for its members to sense quickly the existence and implications of technological change. Certainly it will be hard to arrive at sufficient concensus to bring concerted action. While some parts of the society will, at a given time, not be sensitive to the problems and opportunities that the change is imposing, other parts will be peculiarly alert to both. Thus the President of the United States calls the problems of employment arising from the impact of cybernation "the major domestic challenge of the 60's," while the Dean of the University of Chicago Graduate School of Business says, "... the problem of general unemployment from automation is a nonexistent will-o'-the-wisp."

People and institutions embrace or reject change chiefly in terms of learned responses to their environment—a learning accomplished in the past. As a result there is a strong urge to persist in emphasizing those things perceived in the present and future environment which also seemed most important in the past, when individuals and institutions learned successfully to live and grow strong. For example, only in a few places and only slowly is it beginning to be understood that the consequences of cybernation for values, attitudes, and behavior toward work and leisure may be such that other criteria, such as self-respect, may be more important than economic criteria and that whatever economic criteria are important, they are those of abundance, not scarcity.

When we turn to the effects of the increasing use of automation and computers on work, we find ourselves face to face with the absence of adequate detailed knowledge of what jobs people have, how mobile they are, how they find new jobs, and so on. And we do not know what new jobs will arise through technological change and what old ones will disappear, or at what rate. We know that people have lost jobs because of cybernation and we know people have not been hired at the rates they might have if tasks had not been cybernated. We also know that there are many unclaimed skilled jobs and that many new jobs have arisen because of cybernation. The future extent of cybernation-induced unemployment remains to be seen. All that is truly clear is that the next two decades will contain much economic disruption and reorganization for both men and institutions. Unskilled blue-collar and menial white-collar office workers will likely be affected first, and hard. Among the bluecollar class those displaced so far tend to be the most poorly educated and least incorporated into middle-class values. It has already been only too evident that they are often difficult or impossible to retrain at all, much less for the particular jobs that are available. We know, too, that Negroes comprise a disproportionately larger part of the population losing out to cybernation.

Just beginning to feel the impact is middle management which now performs so many of those tasks which can be rationalized by operations research, solved by the "thinking" computer, and dealt with precisely by top management operating through the insights and control its computers provide.

Even the future of jobs in major sectors of the service industries can be questioned. For many services now provided by humans probably will be provided by machines or at least by fewer humans—or they will be eliminated altogether. For example, where is the "service" in a supermarket? And what's left of it will soon disappear in the newer models. For another, Neiman-Marcus and other department stores now help the shopper pick the proper gift by supplying a list of several appropriate items via computer after the customer pushes the right buttons giving the age, sex, hobbies, etc., of the lucky recipient-to-be.

It is possible, of course, that the trend could be reversed and that people would be taught to demand good human service and lots of it, and to use their affluence to pay for it. And it is possible that other people could be taught to find self-respect in giving good service to others, especially if they have no other skills to offer. But it looks as though it will often be easier to provide reliable machine service for an undemanding public than to change things enough to arrive at well-trained, well-paid human service and a discriminating public seeking it—especially in our society which has no servant class. In the recreation area the situation may be different; we will return to this.

We should keep in mind that a deep understanding of the effects of cybernation on work would distinguish between

the effects on those persons whose work activities are chiefly physical or "blue-collar"; those whose work is of a routine mental activity, such as clerical, statistical, and secretarial (usually called "white-collar"); and those whose work is essentially creative, such as scientific research, artistic production, management activities that are truly management, and those tasks that require people to judge other people. It is plausible to expect that the effects will be different in these various groups because the degree of change introduced by cybernation differs with the type of tasks and, importantly, because different types of people with different backgrounds, aspirations, and personalities are associated with the different types of work. However, as indicated earlier, we know little about the effects on any of these groups. The remarks that follow were gleaned from a recent review by Professor Mann of the relatively few studies made to date of the psychological and social impact of cybernation.

Those employees, both routine white-collar and bluecollar, whose tasks have been converted into cybernated systems generally have more important jobs carrying greater responsibility, have to produce at a higher rate, and have to live with the realization that a breakdown in the system is more costly or disrupting than a similar halt in the old way of doing things. As a result, there are increased feelings of pressure and tension. The studies suggest that at least when the cybernated equipment is first put into operation, those with jobs related to it find it more of a challenge and more interesting, by virtue of its novelty. However, while the blue-collar worker appears to be asked to perform a broader range of duties, the trend with white-collar workers seems to be toward a narrower range of duties. The result seems to point to no net differences in work satisfaction associated with working in cybernated systems. What little

differences have been measured indicate that blue-collar workers are more satisfied, white-collar workers less satisfied, with their new job environments.

Professor Mann suggests another general type of psychological effect from cybernation: Both white-collar and bluecollar workers have an increasing sense that technological changes will importantly affect their working lives. Whitecollar workers are coming to recognize what blue-collar workers have long known: that technological change introduces uncertainty. Moreover, changes in organization within both plant and office, which are inevitable when computers and automatic production lines are introduced, change social relationships as well. Among other things, conversation on the task and other informal, social arrangements are often reduced during the working period because fewer people are involved in performing cybernated tasks and these may be physically quite separated. Other changes are in the pathways to job promotion and the procedures by which efficiency is judged. Shift to cybernation often wipes out investments in time and experience, which people had expected to be useful to their future careers. And with smaller work forces and fewer supervisory tasks, openings for job promotion are often sharply reduced. These changes, therefore, destroy traditional expectancies about how things will be done and how people will be evaluated. Since the social relationships developed in the working environment, and the attitudes associated with the work environment, are a source of support and guidance for the worker, changes in them are necessarily upsetting. At the very least, they require a time for re-establishment or reorganization. (Incidentally, these difficulties are not limited to the blue- and lower white-collar levels; a recent highly respected report prepared for business clients says, "... there is also little doubt that computer installations are severely resisted at the management level by groups who fear a shift in the

balance of power at a management level. This in fact has taken place in many installations.")

Such studies as these hardly scratch the surface of the potential psychological impact of cybernation. Not only have they been limited to the blue-collar workers and clerical and statistical workers in only a few work situations and for short time periods, but even for them they do not cover the vast range of impacts which will occur outside of the immediate work situation.

For example, what will be the effect on the image of one's self and on beliefs about the proper roles of private enterprise and the state when, in order not to fire them outright, workers in an organization are carried to retirement even though their jobs are no longer significant, having been eliminated by cybernation? This procedure has already begun in a few firms, but the long-range effects have yet to be studied. While there has been much comment that the whole trend in the United States is toward alienation from the job, it is probably true that older workers more closely identify themselves with their task. And it is just these older workers who will be carried to retirement at a job which they know is no longer important.

As the new technologies make greater demands on the individual, as human failures become more costly and disruptive to the system in which they operate, and as the competition for jobs increases as a result of temporary or permanent reduction in job opportunities occasioned by the introduction of cybernated systems, it is likely that employers will put greater emphasis on reliable selection procedures at all levels from managerial to blue-collar. And too, screening will move into the early school years as testing becomes more reliable and the requirements for detecting the best minds to run society become more insistent. Thus it may be that sophisticated selection procedures used to pinpoint occupations for more and more workers at all

levels will contribute to a general sense of being a predetermined part of a vast machine, rather than an independent individual capable of making one's own place in the world. What will happen to the self-image of the individual as more and more men and women are selected for tasks on the basis of psychological testing and screening?

Neither do we know what effects to expect from a way of life which, by virtue of a high rate of cybernation, will demand continual learning and unlearning and the associated acceptance of the likelihood that one's occupational niche in life is not permanent and assured.

For all but the unskilled, education will be a lifelong process. The professional will need frequent up-dating in knowledge and technique. The technician will probably change his basic occupation two or three times in his working life and each time will have to unlearn the old and learn something quite different. Today lifelong learning and unlearning are by no means the norm even at the professional level of society, where most doctors, lawyers, and teachers more often than not fall into grooves and avoid the difficult task of readjusting their view of the world and their command of their discipline—and thereby their image of themselves. Certainly, the psychology associated with a lifelong motivation to learn and unlearn is far different from that which exists in any society in more than a tiny fraction of its population.

Let us remember too that in addition to the task of turning out ever more professionals and skilled technicians there is the more formidable assignment of providing for the special needs of those who start from behind; for example, the slum dwellers and particularly the Negroes. Finally, a socially healthy cybernating society will have to deal successfully with the poignant problems of the appropriate work and leisure roles in life for the illiterate, the dull witted, and the poorly motivated, those who have never learned how to

learn and will always have difficulty in doing so. There are tens of millions of these.

Accomplishing these things on the needed scale will take much more long-range planning and active coordinated implementation than this society has accepted in almost any area, let alone education. It is bound to involve extensive government support and the anguished overturning of the interlocking and jealous set of institutions which now give direction to education.

If we add that associated with a will to learn and unlearn there must be a willingness to move to where jobs are available, we arrive at an especially interesting question. The security of a familiar task and a familiar social environment will be missing; what will replace them, and with what results?

Still another aspect of the rapid implementation of cybernation is the psychological effects on women. Increasingly, women in the United States are seeking jobs and, given their usually limited training and male prejudices, these jobs generally are at the routine, clerical level. As cybernation eliminates these jobs, more and more women who are untrained for other tasks will be competing with the increasing number of untrained men. It remains to be seen what the effects will be on women who equate a job with emancipation and equality.

There are questions, too, regarding the impact on the family, not only of a loss of job by the mother or sister, but by a change in the father's job. What will be the effects on the attitudes, aspirations, and behavior of the members of families where a blue-collar job has been upgraded and on families where a middle-level managerial or engineering job has been replaced by a computer? In the former the children of the family may be stimulated to greater aspirations; in the other, depressed and discouraged by the destruction of favored beliefs about worthwhile roles in life.

Shorter work hours may produce other new contrasts within the family. For one, it is not always evident that the breadwinner and the rest of his family will enjoy spending more hours together. However, this sharing may fall more on the wife than on the children, since at the same time the father may be working shorter hours, the children may be going to school longer hours. Here, indeed, is a reversal in living arrangements which must necessarily have effects on the viewpoints held by the children of the world and of their parents. Consider too that the knowledge and associated attitudes in which children will be schooled to prepare for the complex cybernated life they are to lead will often drive them even further from the world of knowledge and values held by their parents. These various effects we have discussed will vary among the existing subcultures in American society, thereby complicating both the problems and opportunities in adjustment to cybernation.

What about the effects of cybernation on the creative workers in society? Those with truly creative tasks will not find themselves threatened for the foreseeable future. On the contrary, they will be able to use these devices to enlarge and facilitate their creative activities. But what is clear is that the computer will free-up the creative capabilities only of those people who by innate talent and training can be more creative than the computers. It remains to be seen just how large this group can be.

In any event, it is gratuitous to imply that the computer will be a blessed release from the boredom of trivial intellectual activity when such activity is all most people are trained for or care to do—and which machines already can now in many cases do as well as they.

We can expect that in the work of management and policy-making especially, the tremendous capabilities of the computers will make more attractive those values and ways of operating which they can enhance and, thereby, will put great pressure on management to become adept in the complex thought techniques required to put computers effectively to work. Not all managers and policy makers will have the temperament or intellectual capabilities to make the transition. Many now in positions of relatively high status and power will, in the next two decades, find themselves inadequate to their new tasks—with resulting strains on them and their families. Among other outcomes, this will affect the motives of youth to recruit itself for management careers and probably change the type of personalities who recruit themselves for such careers.

If we know very little about the impact of cybernation and related technologies on work, we know even less about its present or future impact on leisure. For while we have some considerable familiarity with the experience of work we have almost none with the experience of leisure. Apparently for only a relatively few is leisure a life style in its own right. For most Americans it is either a reward for work or it has a quasi-medical aspect: "It's good for you." What studies and observations there are indicate that when Americans have time free from their job, for the most part they compulsively fill it by furthering their present job, by taking another job, or by a variety of activities through which citizens fulfill the social injunction to consume rather than conserve, and through which they compete for status.

Now the Greeks—to whom we seem to look for our standards of what leisure should be—appeared to deal with this area of activity somewhat differently than we have in recent years. As Paul Goodman puts it, "The Greeks had a word for leisure, $\sigma_{\chi o \lambda \dot{\eta}}$, meaning serious activity without the pressure of necessity; and another word, $\delta_{\iota \alpha \tau \rho \iota \beta \dot{\eta}}$, which meant playful amusement to pass the time. Both were excellent things. Serious leisure was the chief way that a free man grew in character, and that the city made the culture that we still look to today. Pastime was the recuperation

from serious pursuits, including leisure. Theater, athletics, art, and even conversation were serious leisure. The tragedies made you howl and groan and cleaned you out; the comedies were mordant political satires and strenuous aphrodisiacs; the athletics were close to war exercises, though more honorable because they had style and were religious; artistic interest produced civic monuments; and social conversation in the public square was often heatedly aimed toward decisions in the mass juries and political assemblies in which all free men often participated. After such hardworking leisure, a man needed to relax playing knucklebones and to have a drink (of wine mixed in varying degrees with water)."²

There are some signs that the combined consequences of the changes stimulated by the new technologies are encouraging changes in the style of leisure and recreation and probably to some extent the motives behind the styles. For while we still watch TV and uncritically consume other mass entertainment (too much for social commentators' standards), in recent years there has been growth in the number of local orchestras, in attendance at museums, in the consumption of quality literature in paperbacks, and in high-fi. What this all means is still uncertain but at least one can speculate on favorable interpretations. If technology produces shorter work hours, better incomes, and more schooling and, probably, the availability of more people for relatively unskilled service jobs, it is likely there will be more and wider ranging use-and indeed invention-of more creative and self-satisfying recreational and leisureoriented facilities. Indeed if cybernation leads us into a 24-hour work cycle, as it appears it may, and if the use of schools becomes a year-round activity to cope with the hordes of youngsters coming up in the next decades, then recreational activities may be used even more intensively at all times and all seasons. And higher educational requirements for effective living in a cybernated world may eventually produce preferences for more contemplative leisure and creative involvement in social service work—not the least of which will be concerned with teaching and guiding leisure and recreation activities.

But our present ignorance is too great to assure us that things will go this smoothly, at least during the next two decades. There is no reason to believe that professionals will have more leisure time in the foreseeable future than the little they have now. This segment of American society will continue to be overworked for as far ahead as we can see, for too few will be trained to meet the growing demand for such competencies. Therefore, it is precisely those who do not fulfill a creative function who are more likely to have the longer nonworking hours to fill meaningfully. Traditionally the elite was leisured and was educated in its cultivation from birth. If we succeed in inverting this arrangement it should have profound implications indeed.

The fear and our challenge is that our traditional views about work and its innate virtue, ingrained as they are, will not change fast enough. As the philosopher and social historian Hannah Arendt says in her book, The Human Condition, "The modern age has carried with it a theoretical glorification of labor and has resulted in a factual transformation of the whole of society into a laboring society. The fulfillment of the wish (to be free from labor), therefore, like the fulfillment of wishes in fairy tales, comes at a moment when it can only be self-defeating. It is a society of laborers which is about to be liberated from the fetters of labor, and this society does no longer know of those other higher and more meaningful activities for the sake of which this freedom would deserve to be won. Within this society, which is egalitarian because this is labor's way of making men live together, there is no class left, no aristocracy of either a political or spiritual nature from which a restoration of the other capacities of man could start anew. Even presidents, kings, and prime ministers think of their offices in terms of a job necessary for the life of society, and among the intellectuals, only solitary individuals are left who consider what they are doing in terms of work and not in terms of making a living. What we are confronted with is the prospect of a society of laborers without labor, that is, without the only activity left to them. Surely, nothing could be worse."³

Then too there is the profound problem of reconciling the values and image of a leisure-oriented society with the needs generating the "revolution of rising resentments" produced by the slow growth in the developing nations.

During at least the next two decades the problem will be to develop quickly and extensively the motives and values in those who have the free time that will encourage them to pursue the types of leisure activities we think we'd like to emphasize. As of now, no one knows how to induce such values in sufficient numbers of people and, in time, to be available when needed. Indeed the imminent and felicitous synthesis of a national style of rewarding leisure, with the new style and patterns of work, may well be the most difficult challenge a cybernated and humanistic society must meet.

References

- 1. Cybernation has multiple impacts, extending beyond work and leisure. Cf. Donald N. Michael, Cybernation: The Silent Conquest, published by the Center for the Study of Democratic Institutions, Santa Barbara, California, 1962.
- 2. Paul Goodman, "Leisure and Work," in Automation Implications for the Future, ed. Morris Philipson, Vintage Books, New York, 1962.
- 3. Hannah Arendt, The Human Condition, Anchor Books, 1958.

THE CLOSED AND THE OPEN SOCIETY Harold Taylor

Educator

I begin the discussion of an open and closed society by saying that I am in favor of the open one and that if I were to rephrase the topic, I would name it, "How to Keep an Open Society from Getting Closed." I am going to assume that a closed society is one which most of my readers do not want to encourage. I shall therefore confine what I have to say to a review of the things which affect the relationship between an open and a closed society.

I begin with a reference to a comment by Kierkegaard in 1846. "A revolutionary age is an age of action; ours is the age of advertisement and publicity."

The world which Kierkegaard was talking about, a hundred years ago, was breaking its older patterns without having decided on the nature of its new ones. Under the influence of a liberal social philosophy, European society was rebelling against the constraints of a social and cultural order built by rulers whose collective power rested on class, birth, and economic position. The institutions of religion, education, the state, private property, and private ownership of production were losing their grip on the individual and on the world of the 19th century. It was an age of rebellion and indecision, of ambiguity and revolution, of reflective thought and irrational action. A time, in other words, like the 20th century.

Kierkegaard went on to say: "A passionate tumultuous age will overthrow everything, pull everything down; but a revolutionary age that is at the same time reflective and passionless, transforms that expression of strength into a feat of dialectics: it leaves everything standing but cunningly empties it of significance..."

I suggest that something of this kind has happened to us in the Western world of the 20th century. Certainly this is a revolutionary age. It has been so since 1848 and was so before. But we in the Western world have completed our revolutions. The countries of the Eastern and Southern hemispheres have had theirs more recently or are having them now. It will be a long time before they settle down and before we can come to terms with their culture, their objectives, their passions, and their hopes: Even the Russians, whom we are accustomed to think of in different terms, belong with the Western powers whose revolutions have matured. The Soviets, in my judgment, operate a middleaged Western establishment complete with a managerial industrial apparatus, an old-fashioned European system of education with new technical attachments, a cultural program which has yet to find its way out of 19th century European art forms, and a military bureaucracy built to sustain nationalist ambitions. The Soviet Union favors revolutions, but only the ones which serve its own national ambition, not the kind the Chinese Communists have in mind.

The tearing down and the overthrow of the older patterns of life is underway in full degree on the Eastern and African continents. There is passion there, there is a deep realization that the West has built its industrial society and its economic prosperity from the exploitation of other continents, there is an enormous thrust of energy and conviction among the colored races as they move to take their place and to gain their ends in a radically new world

situation. By comparison, the West is passionless, counterrevolutionary, transforming expressions of strength into feats of dialectic, in many ways out of touch with the sources of strength, hope, and need which provide the thrust within the new revolutionary movements. The political stance of the West remains a series of national alliances established on military and economic grounds, a deliberate choice of policies which can save as much as possible of the old regime of Western supremacy and can point only gingerly and reluctantly toward a new open-handed policy of world democracy. The holdovers of the old regime of the 19th century-Adenauer, MacMillan, and de Gaulle-are recognized on the distant continents as symbols of a kind of Western power which has already been undermined by the social and political forces of a new age. Western values, as seen in world perspective, then turn out not to be the values of humanistic science, of the open society; of liberal social change, or the enrichment of the life of humanity at large in the creation of a new world order. Rather they are thought by people outside the West to be part of a holding operation which uses economic, political, and military technologies as the instruments of power and international manipulation. As far as the Western value system is concerned, as Kierkegaard says, "It leaves everything standing but cunningly empties it of significance."

It was something like this which U Thant was saying in an address at Johns Hopkins University when he referred to the inner meaning of neutralism and nonalignment. American policy through the 1950's presented a simple-minded concept of the world as a battlefield between capitalism and communism, and by acting on that concept, the United States encouraged the rest of the world to take us at our face value, and thus to obliterate the difference between the humanism of Western-built liberal democracy and the social autocracy of an authoritarian state.

In a sense, we deserted our major expression of strength—the revolutionary tradition of liberal democracy—and literally transformed it into a feat of dialectics. By accepting the Soviet challenge in Soviet terms we identified ourselves as the opponent of the Soviet world view by confronting their power with ours, and we got a reputation in the world as one side of a two-power bloc, each of which was concerned to dominate the world. The fact that American political philosophy rests on a concept of international democracy, self-determination, independence from colonial rule, and freedom from economic and political oppression was obscured by our constant concern for making military alliances and using foreign policy and economic aid to form a military bloc against the Soviet Union.

If, then, the world took us at our word and classified us as merely one side in a two-power struggle, we should not have been surprised. There was little indication that we saw the world in more sophisticated terms, or that we realized, as U Thant has pointed out, that the "simple formula of East-West confrontation, which was replaced by the East-neutral-West situation, has been superseded by a complex and fluid pattern of international relations." By adopting the dialectic of two opposing forces in place of a more realistic concept of a pluralistic and organic world, we sustained the forces on the other side and maintained the argument with the Soviet Union in Soviet terms.

It seems to me that we have paid a heavy price for such adoption, not the least of which is the confusion we have engendered as to the honesty of our motives—as to the genuineness of our interest in making the world an open society. We have succeeded in full degree in persuading the world and the Soviet Union of the credibility of our military intention and power. It is clear that we are the strongest military and economic power in the world and that we are prepared to use our power to sustain our national interest.

What is not clear is the credibility of our intention to create a disarmed world and to create a new international order in which peace and justice can be maintained through an open world order.

I direct my concern here not to creating a favorable world opinion in the eyes of other countries or to winning a propaganda battle with the Soviet Union, nor yet to conducting our foreign policy with an anxious eye on the world press. I am talking about the hard reality of the acts of the American government, and I am suggesting that until we take one action after another, not as one side in a struggle between two World powers, but as a powerful nation determined to take the leadership in creating a democratic world order, the honesty of our intention will not be believed.

When we look at the problem of creating a democratic world order, I believe we can find a sharp contrast between the way in which the American intellectual community goes about its political business and the historical attitude of the Europeans toward the work of an intelligentsia. The style of the European philosophers and political thinkers is distinctive. Theirs is a consistent use of abstractions to describe the position of man in the world, and the ideas upon which man should act.

For example, "The . . . conception of life is a religious one, in which man is viewed in his immanent relation to a higher law. He is endowed with an objective will, transcending the individual and raising him to conscious membership of a spiritual society."

Few of us can readily identify the writer of that sentence, which could have appeared in any number of political or social documents of political philosophers. It was written by Benito Mussolini about the Fascist conception of life. What is omitted in the quotation above is, "the Fascist conception of life is a religious one. . .".

Political thinkers who employ high forms of abstraction

have a tendency to cover over difficulties of political action and organization. I cite this example in the language of Mussolini as an instance of avoiding such difficulties by rushing to a higher ground.

Here is another example: "The state is therefore by no means a power imposed on society from outside; just as little is it 'the reality of the moral idea', 'the image of reality and reason', as Hegel has asserted. Rather, it is the product of society at a certain stage of development; it is the admission that this society has become entangled in an insoluble contradiction with itself, that it is cleft into irreconcilable antagonisms which it is powerless to dispel."

Again, the characteristic abstractions of the "state", "society", "the image and reality of reason", "the reality of the moral idea." This passage is from Engels, arguing about the origin of family, private property, and the state. The family itself becomes an abstract concept within a political system. The difficulty with this kind of thinking and writing is that it is very hard to probe below the levels of the abstraction to find the reality beneath.

In contrast, the characteristic approach of the American philosopher is represented by William James, who said, "We can see into a generalization only as far as our knowledge of its detail extends."

When we look at those who are philosophers in the American tradition, we find that the tradition stems from the British empiricists. In the 17th century, for example, we look to John Locke, who was more concerned about the way in which the mind did actually work, or how one could handle the problem of private property in the community, or how you could make a statement about the rights of man which could be put into a constitution, than he was about the abstract problem of how you unite the mind with the body.

In the 17th century we see Descartes on the continent

more interested in the question of how mental substance was related to material substance than he was in practical politics and how philosophy can be useful in running a country.

In the 18th century, we had David Hume in England and Rousseau on the continent; Rousseau with a theory of human nature which seemed plausible on the surface, but which made an abstract theory out of some few of the facts about human beings. On the other hand, among the English and the Scots we had David Hume, with a tough, skeptical, practical mind, looking at the reality of things, asking how the mind actually works, and in his philosophy setting some of the foundations of the modern science of psychology.

In the 19th century, we have Hegel on the continent, with his notion of the inevitability of history conditioning individual events in day-to-day life, a history inexorably moving on in a pattern ordained by world principles outside experience. In the England of the 19th century we had Charles Darwin talking about the empirical facts of science and the way that events in evolutionary history evolve from previous events.

A 20th century contrast can be seen in the difference between the American John Dewey and the continental philosopher Karl Marx. Dewey represents a philosophy which starts from the individual human life, a life that can build new kinds of social structure, educational institutions, and cultural patterns, taking their form from the reality of the life of each individual. This way of philosophizing contrasts sharply with that of Marx, who starts from certain assumptions about the universe and deduces a set of laws about human nature and the course of history which are based on the abstractions with which he began.

It seems to me that in the past few years in America we have moved away from our own progressive and pragmatic tradition into the acceptance of a European style of philosophizing, without realizing that problems in world affairs will yield more readily to pragmatic solutions than to the developments of grand designs and abstract theories. For example, we have what amounts to Jesuitical thinking among the Defense Department intellectuals, who, starting with a particular theory, that of military deterrence, have in many ways become rather like the scholastics of the 13th and 14th centuries who constructed theories on the basis of one fundamental premise—and thereby became wholly dependent on the validity of that premise. We thus have contemporary military thinkers in elaborate theoretical enterprises which may or may not be related to the actual political facts with which the world has to deal.

Our intellectuals within the American tradition are people like Mark Twain, whose direct relationship with his American audience was developed through appearances on lecture platforms where he talked language which his audience could understand. His was a tough and skeptical mind, particularly in the field of religion. He managed to convince people of his own views by the incisiveness of his wit and his ability to talk directly to those who wished to hear. He spoke and wrote as an artist, in the vernacular. Within our oral tradition we cherish poets of the style of Walt Whitman, who urged his audiences to accept the fact that there was poetry in their everyday lives and that there was no private vocabulary to be used exclusively by poets and critics, but that there was a common language of imagery, metaphor, and experience which united the poet with his society. Robert Frost is, of course, in this tradition. His use of the vernacular within his poetry did not damage the poetic insight he wished to convey. Nor was there a sharp difference between the way Frost talked to his audiences and the way he read his poems. When he says in one of his greatest poems, "The Gift Outright," "... To the land vaguely realizing westward, but still unstoried, artless, unenhanced . . ." he is talking in the language of an American vocabulary raised to the level of poetry. His conception of the true poem is of an emotion which has found its way into thought, and of thought finding its way into words, thus making a simple transposition from one's private experience into a higher level of expression. In some such way as this, the elements of American culture define themselves in terms different from those of the European.

Returning to the philosophers for a moment, we find that William James belongs at the center of our own tradition in just the way that Whitman and Frost do within literature. The central point in James' philosophy is that the unique insight of the individual contributes something of importance to the total truth which makes up philosophical principle. Ours is a romantic tradition, established by those who have wished to give us the tang of immediacy with people themselves, and through that immediacy to raise to the level of universality the ideas to be found in life.

Yet through the years there has been an opposite tradition in this country—that of accepting European leadership in cultural affairs, and of thinking of American culture as a second-hand version of the European. The opera house of the old West was not a natural place for the arts, but a place for dressed-up people to go in order to demonstrate their concern for Culture. In many ways culture in America has been of the opera-house variety, with a neglect of our own tradition. It has not been until these last few years of this century that we have been able to free ourselves from European domination; to accept, for example, Martha Graham as a great original and inventive artist working within the American materials of dance and theatre.

It is only in recent years that we have been able to look at our own painters and sculptors without comparing them with the Europeans, and to develop through artists like Pollock, DeKooning, and Roszak a whole new approach to art forms which come out of the American tradition yet blend with European and world culture. It is within these recent years, when America has come of age in cultural terms, that we have drifted to a reliance on European thinking in political philosophy.

Let me now turn to a different segment of American experience, and speak briefly of a familiar fact of great significance to our contemporary lives. One way of summarizing this fact is to say that every 10 years the total knowledge of the world now doubles, and that there are more scientists now alive than ever previously existed in the whole history of Western and Eastern civilization. This has resulted in certain basic changes in contemporary society, both here and abroad.

Robert Oppenheimer spoke eloquently of the significance of these changes in an address he made in Berlin. He was commenting on the enormous increase in knowledge, and he went on to say this:

I have been much concerned that in this world we have so largely lost the ability to talk with one another. In the great succession of deep discoveries, we have become removed from one another in tradition, and in a certain measure even in language. We have had neither the time nor the skill nor the dedication to tell one another what we have learned, nor to listen, nor to hear, nor to welcome its enrichment of the common culture and the common understanding. Thus the public sector of our lives, what we have and hold in common, has suffered, as have the illumination of the arts, the deepening of justice, and virtue, the ennobling of power and of our common discourse. We are less men for this. Our specialized traditions flourish; our private beauties thrive; but in those high undertakings where man derives strength and insight from the public excellence, we have been impoverished. We hunger for nobility: the rare words and acts that harmonize simplicity and truth. In this I see some connection with the great unresolved public problems: survival, liberty, fraternity.

I believe it is true, as Robert Oppenheimer has said, that with the development of a vast new body of knowledge, a new world culture, and an incredible number of problems in which the United States is involved, we have lost touch with each other. The society has become more and more organized, we have looked to technology and the practical results of science for the base of our culture. This has been true of the Soviet Union; it has been equally true of America.

It was not very long ago that America lived in small communities on farms and in small towns, with 70 percent of the population there. Now we are exactly reversed from those days and have 65 to 70 percent of our population in big cities and suburban areas. This has resulted in an organization which has reduced the quality of our personal relationships. In place of the smaller American communities, schools, colleges, businesses, and informal institutions, we now have big labor, big business, big military, big government, mass media and mass forms of communication.

The size of things has an effect on the way we look at each other. We now find people who find it possible to talk in casual military terms of the possible destruction of 60 million Americans in a nuclear war, plus 60 to 80 million Soviet citizens, aside from a few extra million bystanders not even in on the fight. We have learned to talk in this way about human lives.

At the beginning of this century the idea of losing 60 million people in any form of either natural or human destruction would have been unthinkable. Yet we have now learned to think about the unthinkable and to consider human beings as anonymous units who can be disposed of. Yet in fact, if one single life is lost in the enterprise of war

we betray a principle deep within the American and Western tradition of the worth of the human person.

We have become used to talking this way about human lives because we have shifted our attention to the technologies of life and away from the reality of the human spirit. We can happily contemplate assigning 25 to 30 billion dollars to organize a moon-shot. I am one of those within the intellectual community who takes a poor view of rushing to place a man on the moon in order to get him there before the Soviets do, and I am one of those who feel that the shift away from scientific exploration into a concern for political prestige is a mistaken policy and unworthy of American scientific enterprise. It is an enterprise in big rocket-boosters, not an enterprise in the exploration of space. A completely different calculation of possibility would exist were we to spend only 8 billion of the 30 to make a first-rate university available to each of the fifty-three countries who have joined the United Nations since that organization began. I am plagued by the enormous possibilities for the use of such massive funds in a much better purpose.

We are all aware of the familiar fact that while the military budgets go flying through Congress with the speed of light, Congress cannot bring itself to pass an aid bill for education unless it can be done under the guise either of helping the families of those who are put down near military establishments, or of relating it directly to military security. The notion that we must call aid to education an aid to national defense has in it the seeds of disaster, and it is futile to think that teaching foreign languages, organizing better counseling services, and improving the teaching of science will settle the country's educational needs. Perhaps what we should do in order to help the present administration bill through Congress is to insert a line in every other paragraph, "this will beat the Russians." Al-

though it is not as yet possible to turn a whole educational system into a branch of the military services, there are people who are at work trying to arrange it.

I wish to draw our attention to two episodes which occurred simultaneously in recent American history and which illustrate the imbalance of our national values. During this last fall, Walter Schirra went into orbit with the aid of an incredibly complex system of technology and applied science, with the work of approximately 25 thousand of our most brilliant scientists and technologists and approximately 8 billion dollars of research funds behind him. He was in orbit with the entire set of resources of the mass media at the country's disposal to report his activities from moment to moment to a waiting country. Mr. Schirra had been selected from the country's population of available American manhood for the degree of his emotional stability, the degree of his intelligence, and the degree of his athletic and physical attributes. He had to be educated sufficiently at least to understand the principles which made his orbiting possible. The preparation for that orbit took a very long time, and was accomplished at the expense of hundreds of thousands of man-hours, and thousands upon thousands of technological ideas.

During the week of Mr. Schirra's orbiting, Mr. James Meredith was entering the campus of the University of Mississippi where not one dollar had been spent on the preparation for his orbit into that area of human space occupied by the most important of all human values—again, the worth of the human person. He therefore entered a hostile student-body to take up residence at a university to which he had a perfect right to go, and was addressed by such happy little phrases as "Go back to Africa, you dirty nigger." He entered a university where the faculty was quiescent, not to say supine, and seemed to have had no notion

that there was anything which had been necessary for them to do in preparation, and who had obviously not discussed the principles of honor, justice, integrity, and decency with anyone in the University of Mississippi student-body. There was also no preparation on the part of the President, whose place was taken by the Governor, who appropriated all administrative authority and violated every principle of academic freedom that has been known since the universities of the West began. Nor did the lack of preparation stop after Mr. Meredith occupied his room at the University; it was not until several weeks after the hostilities had simmered and erupted in a variety of ways that the administration took any action about such matters as students who plastered shoe polish over the doors of those who sat beside Mr. Meredith at dinner, or others who threatened through the use of bombs to cause further damage to the University premises.

It seems to me that these two episodes indicate exactly where the imbalance in our value-structure lies. Our attention has been removed from the moral and social questions which must be solved if we are to have an open society in the future, and we have centered our attention upon technologies and public relations programs to persuade the world that we are powerful, technologically sophisticated, and militarily threatening.

There is another aspect of the shift in our value-structure which needs to be given close scrutiny. This is the bureaucracy of the big university in contemporary America. The bureaucracy has come about as one aspect of the organization society which we have now accepted, and we now have within the American university a system in which the major part of the enterprise is connected with research, most of which is carried out in the natural sciences and a large proportion of which deals with matters of interest to the Defense Department. This has created a gap between the

students and the faculty which in many instances is almost unbridgeable. The research professor has so grown in importance on the American college campus that the biggest reward a professor can have these days is to be told that he does not have to teach. He is given laboratory equipment, he can procure research grants, he is given leaves of absence to serve industry and the Government and to involve himself in any number of auxiliary enterprises. As you who are here in Washington may have noticed, a considerable number of university professors have joined the Establishment, and are at work in planning our future for us.

The gap between that professor and the student is typical of the American university of the 1960's. The big organization society has produced an infiltration of attitudes from the culture into the entire educational system. The remarks of Admiral Rickover about the system are accepted as plausible since, with the obsession we have for competing with the Soviet Union in technological and scientific exploits, the ability to get good grades in the elementary and high schools is equated with human excellence. The Admiral's program is entirely appropriate for recruiting engineers and scientists into the atomic energy program of the government and the armed services but would, if put into effect, destroy the fabric of American democracy. The Admiral accepts the clichés of the European educational thinkers of the past who did their thinking on behalf of a class society. With an extraordinary ignorance of American philosophy, particularly the philosophy of one of its greatest thinkers, John Dewey, the Admiral dismisses the efforts of the progressive tradition within American education as a system of frills, as timewasting enterprises which spend too much time on things other than academic studies of the kind which mark the European system. Students should therefore be selected by competitive tests at an early age, standardized tests for graduation from high school should unify our academic standards across the country, and we would then be able to devote our primary attention to those whose talents are primarily scholastic. This would give us the leadership for a managerial and industrial society.

It is exactly this educational philosophy, with its political and social implications, which supports the class system within the European community. If the country wishes to select an elite in terms of scholastic aptitude at an early age, it is certainly possible to build a society which will have an elite, who will then run the society by their managerial and engineering talents.

However, what the American tradition calls for is not that kind of elitism. The American tradition calls for what Whitman, James, Emerson, and those other thinkers and talkers who make up the American culture wanted to have—a chance for everyone to begin at the level of his talent and to go as far upwards as he can, with no one being excluded from any possibility of intellectual and social advance through the whole of his life. Within the American tradition what we must do is to build educational programs which are appropriate to whatever level of achievement the young person has reached, and then to move the young person into the next level of achievement which is possible for him.

With the enormous growth of the school systems and the universities, we have diverted our attention from the simple proposition that each child needs a teacher—needs someone who can help to liberate his talents. We now concentrate on building a system in which we are making little organization men out of children in the elementary schools, and bigger organization men out of those in the high schools and colleges.

In the nursery schools where, until now, the child has

been safe, there is some indication that the talent scouts will be moving in with tests of creativity and scholastic aptitude, and the 3-year-olds had better look out. Now that I am free from the necessity of organizing the affairs of an institution, I am considering the establishment of a prenursery school cram-school, and when I get that started, I am going to start a prenatal cram school to take care of the whole business.

As Eric Sevareid has said, "The main industry in America is not in steel, or in automobiles, or even in television; the main industry is the manufacture, distribution and refinement of anxiety." We have now found ways of making the 7- and 8-year-olds anxious about their grades, and we find that the entire last 2 years of high school is pretty well destroyed by a mass anxiety for scholastic success among those who are competing for position. We find the colleges and universities converted into manpower training institutes for getting grades, and the best of the students play the system but withdraw into their own personal communities where the most important things in their lives are going on. That is to say, they are talking and thinking about the bigger issues in life, including the question of where the world is going.

Let me sum up these various phenomena into one general statement which it seems to me has some implication when we are thinking of where the organization society is now taking us. If we think of making education and our cultural institutions an instrument of national policy, we therefore link our culture, our society, and its institutions of all kinds to whatever national policy is determined by the Government. This is, of course, the way of the authoritarian state. We have done many of the things we have done because as a nation we have been anxious, because we have known that we must be strong, powerful, and ready to face the world and confront the Soviet Union. But we have done these things to ourselves without thinking seriously about the

main issues in American life, and without raising the question as to whether our national policies can in the long run overcome the problems they are designed to solve. The most important things in life cannot be organized in the way in which we have been trying to organize them. The relation between the teacher and the student cannot be organized into a bureaucracy—it must exist in the reality of the teacher's awareness of each child. It is necessary to know each child as a person in order to teach him well.

In fact, this is the major lesson which the Soviets have to teach us. The lesson we learn from them is not the one which is usually told to us, that the heavier dose of academic materials administered over a longer day, a longer week, and a longer year is what has given Soviet space science a head start over ours. In fact, our space science is much more sophisticated and farther advanced than the Russians'. The lesson to be learned from the Soviets is that they spend twice as much money on education as we do in comparative terms, and that they make every effort to put a teacher into every classroom, with classes of twenty to twenty-five, and they make certain that the teachers have had the full support of the society in subsidizing their education and in becoming first-rate practitioners of the art of teaching.

It is not necessary for the Soviet Union to have the continuing battery of tests and the batteries of anxiety-producers of all sorts, because the teachers can take the time and have the time to deal with those who come before them. If some move a little more slowly than others, they can be helped when they need it. If others go faster, they can be allowed to go at a faster pace.

The Soviet Union considers its children to be its chief resource. This is not simply due to a theory that they want to produce educated manpower to serve the State. They love their children as much as anyone else.

In this country, the least we can do is to take our children as seriously as do the Soviets, and for the right reasons. The right reasons are that we wish each child to become a thinking, feeling, open-hearted individual who is able to solve his own problems and contribute his talents to the welfare of the total community. What we need just now is a return to the original American philosophy which is liberal, progressive, and democratic.

Consider, for example, the historic event of a hundred years ago by which the Land-Grant Act established new institutions of education for all. The attitude beneath that piece of legislation was that there was no point in transplanting European culture into American institutions. What America needed was a new kind of institution which served directly the personal and practical needs of the citizens of the state. Over the years these needs have broadened in conception until the state university now recognizes the need for scientists, scholars, poets, composers, writers, politicians, agricultural experts, engineers, and public servants and a whole variety of others. The philosophy of the Land-Grant institution is one which recognizes the fact that each young person born in the state has a contribution to make to his society, and that he can only make it if he is given a full chance to show what he can do within the educational system.

The notion that we need an intelligentsia of the European sort which can operate as an elite, within the American government or outside it, to handle the problems of the rest of the American people—this is a false conception. It is the central philosophy we need to fight. What we need to put in its place is a liberal philosophy which reaches out to the whole of society—to the average, the below-average, the slow learners, the fast learners, the privileged, the culturally deprived, the entire population of all shapes and sizes. What

we must provide is a way in which each can learn how to achieve his own destiny, how to make his contribution to life. It seems to me that this is the only way we are going to be able to maintain an open society.

The program of the Peace Corps is one which is working within this tradition. I have had the privilege of talking to many students who are on their way to the Peace Corps or in it, and I have letters from many who are in Peace Corps projects. The conception which they have grasped is one in which the liberally educated person has a clear understanding of himself and his own values, and of the values of his society. Coupled with this is a wish to use one's own practical skills in the service of others. The man who has been educated to do these things has been educated in the true sense of the word. In this system one learns a foreign language not merely to get out of the university with credits, but to learn the foreign language in order to saturate oneself in another culture so that one may understand other people. Although this is not the reason that foreign languages are presently taught in the American high schools and universities, it is the reason that Peace Corps students learn them.

If we look at the possibility of domestic Peace Corps projects and at the legislation designed to establish them, we find within such legislation the same social philosophy which inspires the best in the American tradition—that one is educated in order to learn how to be oneself in a society which one understands, and how to make a personal contribution to it. In this education there is no separation between the liberal arts and the vocations, no separation between what one does practically and what one thinks as an intellectual. Certainly one must think clearly as an intellectual in order to understand the society, but the purpose in doing so is not to remove oneself from society.

It is in this direction that I urge we move our educational thinking. As long as we continue to believe that our national

security rests on the proliferation of present nuclear and conventional weapons, and that the continuing increase in military power and defense preparations is the way to our salvation, then we are not going to be able to make the contribution that America can make and must make if we are to maintain leadership within the world community. Our kind of leadership begins with the simple progressive idea that a society consists of individuals joined together to share and develop the talents of each. It is a society in which everyone welcomes everyone else's truth, and we maintain an open society when we insist that everyone's truth be included. We also want everyone's talent to contribute to the total welfare. When we begin again to think in this way, then we begin to see the nature of the world problem.



CAN DEMOCRACY PRODUCE EXCELLENCE?

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What this title implies, I believe, is the relation between democracy and civilization—the relation between democracy and greatness. We can say too, as Emerson said of England a century ago, that the whole world is an interested party in that relationship. It's a very old inquiry, this inquiry about the relation of democracy to this sort of greatness. It is reassuring that we should be returning, more and more, to great philosophical inquiries of this character. It takes us back to the 18th century—to the days when the philosophers of many countries, including the new United States, were asking fundamental questions: Was civilization a mistake, for example; was the discovery of America a curse or a blessing; what is the best form of government? (To the discovery of America question, of eight answers recorded about 1870, four said it was a curse, four that it was a blessing.) It is necessary periodically to break away from the limitations of the immediate—to ask these broad philosophical questions, because these are questions that concern the whole of mankind; because, we say, in a sense it's our last chance. It may be our last chance to ask these fundamental questions and to work out acceptable answers to them. If we don't get good answers this time, we may not be able to ask any more questions.

The title presents more than an historical inquiry. The question at issue is not solely historical, nor is it impersonal

or abstract or doctrinaire. What we want to learn, if we can, has to do with the present and with the future. What we are asking is whether our system and practices and habits can, in the nature of things, be expected to provide the leadership, the imagination, the inventiveness, the creativity, in all those areas of politics and science and education and the arts that are embraced in the term civilization.

That is what concerns us: and well it may. Every generation thinks that its problems are the most acute; that the crises that face it are the gravest that anyone ever faced. This has come to be a kind of gamesmanship around the world—to declare who has the hardest time and who faces the greatest crises. Earlier generations had troubles too. The generation that fought the Revolution, for example, or the generation that went through the Civil War—that fiery trial which, said Lincoln, would light us down to honor or dishonor to the latest generation. We should keep a sense of proportion in considering the problems that confront us. Yet we should keep a sense of responsibility too, for it is true that we are confronted with problems of an unprecedented character, problems that require unprecedented inventiveness and ingenuity.

They are unprecedented in quantity; no earlier generation was required to know about quite so many things. We have to be up to date on the problems of Vietnam, Berlin, Egypt, Israel, Korea, Taiwan, Cuba, Brazil; the current Canadian political affair, which we brought down on ourselves pretty much.

Our problems are unprecedented in complexity, for each is connected with all others. We can't move in one part of the globe without affecting what we do in other parts. Witness our military preparations and their impact on Canadian politics or our relations with England and the Common Market and the Common Market on it. Everything is more

complicated than in the days of Washington or Lincoln or the first Roosevelt.

Problems of today are unprecedented in their potential significance. Ours is the first generation when the survival not only of the nation but of mankind appears to be at stake.

Here then is the question. Given the nature of our society and our political system, can we provide the leadership, can we find that creative talent, can we produce those other qualities essential to our salvation and the salvation of much of the rest of the globe?

But what are these circumstances that are given, what is the situation we find ourselves in? They are hinted at in our first word, Democracy. Democracy itself; and can democracy produce excellence or creativeness. It was the magistery of Tocqueville who observed 130 years ago that leadership is a good deal more difficult in a democracy than in other kinds of societies, and that leadership was far more difficult in the New World than it was in the Old. A leadership that comes from an aristocratic society, a class society, whose upper classes are trained to leadership through generations of experience, has fewer problems of this character than does ours. It is interesting to recall that in the great crisis of 1861 the South seemed to have all the leading generals, not the North. It was the Southern society of some aristocratic traditions, where the upper classes had a habit of going into the military and staying there, that had the generals to start with. Even the Commanding General of the Union Army was Winfield Scott of Virginia and the greatest Naval hero was Farragut of Tennessee. It took some time for the more classless northern society to find the Generals. It's easier for a class society to find leadership than for a classless one. And it was Tocqueville, too, who asserted that the genius of democracy was in its effects on the average, not in the discovery of talent; that democracy leveled up to be sure, but it leveled

down at the same time; that the circumstances of democracy and equality made for standardization, for intellectual, social, and moral conformity, made for the exhaltation of the average; made he said, inevitably, for mediocrity and for uniformity. "I confess that I apprehend much less for democratic society from the boldness than from the mediocrity of desires," he said. What appears to me most to be dreaded is that in the midst of the small incessant occupations of private life, ambition should lose its vigor and its greatness—that the passions of man should abate and at the same time be lowered; so that the march of society should every day become more tranquil and less aspiring.

Almost a century later the great philosopher who I think understood us best, William James, warned of almost the same thing. "Democracy is on trial," he said, "and no one knows how it will stand the ordeal. . . . What its critics now affirm is that its preferences are inveterately for the inferior. So it was in the beginning, they say, and so it will be the world without end. Vulgarity enthroned and institutionalized, elbowing everything superior from the highway, this, they tell us, is our irremediable destiny."

A further difficulty is not so widely appreciated, I think, but was very much in the minds of the 18th century. That is the problem of bigness. In the light of experience we should ask whether bigness itself is compatible with greatness, with excellence. We can, I suppose, think they are not only compatible but very often identical. Yet almost all the civilizations of the past came from small countries or small parts of larger countries, thus in Judea, thus in Athens, thus the Roman Republic, thus—when we come down to modern times—the great city states of Italy: Florence in the 14th and 15th centuries; Siena, Padua, Venice in the 16th; Naples and Sicily; thus Elizabethan England with its great galaxy of writers and musicians and statesmen and seamen and explorers; thus the little states of the low countries in the 17th

century, swept by war and threatened by dissension but producing the richest and the greatest century they have known; thus the tiny principalities of Germany and Austria—Salzburg, for example, in the realm of music, or Weimar, the Weimar of Goethe, a far greater culture than that of the Weimar Republic; France of the Enlightenment, France of the Encyclopedists—a large country by western European standards of its day, but a country dominated by a very small elite; thus early in the 19th century, the flourishing civilization of tiny Denmark, in the days of its defeat and destruction—the Denmark that knew Hans Christian Andersen, Grundtvig, Kierkegaard, Thorwaldsen, Oehlenschlaeger, the brothers Orsted, and all in one glorious generation; thus the American colonies in the last quarter of the 18th century.

We are all familiar with this, but familiarity still does not dull our wonder in the repetitive phenomenon of history that a small society can produce great and glorious civilization. Need I remind you what our own society produced in the last quarter of the 18th century, when it was less than 3 million strong, an outpost of civilization struggling with wilderness, without a single city of more than 40,000 population and with none of the instruments of civilization taken for granted then or now. Nevertheless, it was the most creative, most productive generation in our history, and in the realm of politics there shone the greatest galaxy yet witnessed.

Then there are dangers, threats, incompatibilities. At least it is so alleged, at least so history suggests. There is the danger that democracy is irretrievable mediocrity, the danger that bigness will destroy civilization, the fine flowering of the spirit and of the mind. Has democracy discouraged excellence, or defeated talent, or prevented greatness? To keep our inquiry within manageable bounds, we ask whether our democracy, democracy in the United States of America, has done that.

Perhaps we first ask for what the lawyers call a plea in abatement. The purpose of our kind of society, an egalitarian society, was not originally the production of an elite, a political, intellectual, artistic, scientific elite. It was not the creation of a civilization which could compete with that created by, or protected by, a Louis XIV, or by the princes of Italian courts. It was the creation and protection of a society which might provide life and liberty and happiness to the great mass of its citizens—white citizens, for Negroes were excluded from this utopia. The purpose of the new society was not to create an elite leadership, but to discover a natural aristocracy, leaders who might come up from the people, just as Benjamin Franklin and John Adams and Tom Paine and Jefferson himself had come up from plain people. The subject of talent was widely discussed by Jefferson and Adams who exchanged letters and found one of their few points of agreement in seeing the only aristocracy as one of personal talent, not of birth and not of inheritance. Jefferson, the greatest expert on this subject we have produced and virtually the philosopher of American democracy, deliberately planned to provide the kind of leadership America needed through a combination of three things he addressed himself to: schools and universities, freedom, and prosperity. These were intended to assure a happy and virtuous people; to create "a rising nation, spread over a wide and fruitful land, traversing all the seas with the rich production of their industry, engaged in commerce with nations who feel power and forget right, advancing rapidly to destinies beyond the reach of mortal eye. . . . "

The point is worth belaboring, for there is endless misunderstanding about this point that America wasn't set up to produce the elites of France, Germany, or Italy. To be sure, we inherited from the Old World our whole notion of culture. Even today when we associate with the word the string quartet in the Esterhazy Palace, the gardens of Versailles, the architecture of Palladio, the paintings of a Raphael or perhaps of a Fragonard. Also, if we are sufficiently at home in history, we think of the great work of the scientists—under Royal Patronage—of the philosophers and the men of letters, who planned constitutions for Emperors, which somehow never came off; who wrote letters to Princes, who didn't read them. When we think of culture in terms of Palladio, Caneletto, Mozart, Buffon, Baron Grimm, Linnaeus, or Holbert, and contrast it with the American scene, we are easily discouraged. Where, we ask, are democracy's Mozarts and Palladios?

But is it not elementary—this is our plea in abatement—that democracy has had other criteria of culture? Enlightenment, to be sure, but enlightenment for all. Schools rather than royal academies. Newspapers, a popular press. Domestic architecture rather than magnificent public architecture. General enlightenment, justice, freedom of action and of speech and of thought. This is the form New World culture was to take. If this is not culture, we must find a new name for it. Democracy devoted itself to the search for excellence in new areas and on behalf of new segments of society. What the Old World philosophers sought most assiduously—"Felicity" (a vast literature on it)—was written into the fundamental documents of governments of the New World as the happiness to be pursued.

Although democracy found a new and different form of excellence, even in the old forms New World democracy did not really do too badly. Democracy did prove creative, inventive, resourceful. In some areas it proved that it could achieve greatness.

There is danger here of chauvinism. We must avoid the pit of chauvinism which yawns before us. I only suggest that in several areas of immense importance New World

democracy did in fact discover a resourcefulness and creativity greater than any the Old World was able to summon up in the 18th and 19th centuries.

First and foremost, democracy achieved in the realm of politics. Traditionally, this may not be culture but it is part of the creative process. In a sense we may say that 18th century Europe failed to solve its problems except through revolution and violence. It was a failure to understand the political processes, a failure to invent, to create, in the realm of statesmanship.

Statesmanship was an American speciality in the same way that music was the Viennese specialty or science the Parisian speciality of the 18th century. The Americans of that century created political institutions, more institutions and more lasting ones than have been created by any other people at any other time in history.

Most of all they created a *nation*. Ours was the first nation to be *made*—for Lincoln was right when he asserted that Our Fathers brought forth a new nation. All other nations had grown, all others had been the product of centuries of history. The Americans created one overnight. They provided it with all the necessary ingredients of body and spirit, and they made it work. Ever since, the idea that men can make a nation has been a ferment throughout the world.

The Americans took the ancient idea that men make government, and translated it into the institution of the constitutional convention. They converted a theory into a mechanism. Previously men could make or end government only by force and violence. But the Americans—John Adams and James Madison chiefly—substituted (in the words of Madison) "the benign magistracy of the law for the awful coercion of the sword."

Americans took the ancient idea that government was limited, that no government had all power, and translated it into the most elaborate system of checks and balances ever devised—a system that has worked almost too well at times: written constitutions, separation of powers, bills of rights, distribution of powers among governments, judicial veto, and so forth.

They took the ancient but never-working notion of a confederation and created the first really successful federal system in history. The Federal idea has spread all over the globe.

Americans rejected the ancient notions of colonialism, notions to which Old World nations clung all through the 19th century. By a great flight of the imagination they substituted for it the principle that colonials are not colonials at all but citizens, and that colonies are not colonies but States.

Just to show how really practical they were, the fathers turned to the difficult task of making self-government work, making democracy work, and invented the political party.

In the social and cultural arena, we could add the realization of the idea of social equality in the first egalitarian society (egalitarianism achieved by evolution, not revolution). Also the realization of enlightenment through general if not universal education.

And in the realm of Education our nation's founders added the college—really unknown abroad except at Oxford and Cambridge and St. Andrews as part of a university; and state universities; and in more recent years professional schools, rare in other countries.

In the realm of Science and Technology, I do not argue that Americans have been more creative than other peoples; the contrary was true in most of 19th century and Tocqueville was right in asserting that American achievement was in applied rather than in pure science. But it is no longer possible to make such an assertion. If we came somewhat late to the scientific arena, we came in full force and conquered the field.

In view of all this, we can judge Tocqueville wrong in his

more mordant predictions about mediocrity in democracy. We need not be apologetic about the American creative capacity. But while such a reflection on the past may give us cause for pride in the past, it does not necessarily give us ground for confidence in the future. It might be observed, for example, that although we were tremendously creative politically in the last quarter of the 18th century, we have not created anything of great importance in 150 years since. It might be alleged that in education we are living on our capital rather than adding to it. And as for science, that surely is universal, not national—so interdependent that no one western country can assume to itself all credit for national achievements. We are very much like Alice, in the Red Queen—the Alice who found that she had to run twice as fast if she was going to get anywhere. It is not enough that we look to our past, heartening though it be; it is not enough that we assert that Culture has manifestations in the New World different from those in the Old. We have to get on with the job.

For the problem has moved into a new dimension. Then of what use to intone the old litanies? The new dimension is one whose boundaries are fixed by familiar developments: by the tremendous increase in population; by the even greater increase in urban population; by the general lifting of educational levels; by acquisition of worldwide responsibilities. These inescapably mean that society is going to need far more leadership, far more expertise, far more creativity, than in the past. On one level, that of getting the work done, our society is going to need doctors, surgeons, psychiatrists, engineers, librarians, architects, administrators, physicists, jurists, scholars, in proportion not just to the increase in population but to the increase in responsibility. An urban civilization, an affluent civilization, a leisure society will require these experts in large numbers. So will a nation which has taken on responsibility for providing guidance to

a good part of the globe. The quantitative change has taken on a qualitative character.

Is there any way of encouraging the production of talent? Of leadership? Of creativity? No problem engaged the interest of foundations and universities more anxiously than how to discover and nourish talent. The search is not so much for pre-existing talent as for the key to its production. Does past experience give us any hints? A few, I think.

First, it is imperative to stop the waste of talent.

A democracy probably wastes less than aristocracies, but we need all the talent we can get.

Who can doubt that we do waste it?

We waste it by denying educational and social opportunities to 10 percent of our population—the Negro element, largely—but by no means only—in the South.

We waste it by inadequate schools for a substantial part of our population, white as well as Negro, and by the tragic erosion of school population in the high school years.

We waste it by educational malpractices which fritter away one or two years of high school in activities mostly useless, and which give us our skilled men and women at an age when they have lost much of their initiative and drive and originality.

We waste it by public health policies that allow a draining away of life and energy and talent that is inexcusably costly.

We waste it permitting—if that is the word—conditions of poverty, conditions of housing, that are guaranteed to discourage and destroy such talent as exists.

We waste it in other areas too—it would take me too far astray to discuss these: I have in mind such things as the concentration of a large part of the intellectual and emotional energy of the country in hatred and fear rather than its diversion into confidence and cooperation.

We waste it through conformity—through denying the

free play of talent to so many of our young, discouraging their independence, their individuality, their eccentricity, in the school room or on the playground—or in our organized economy and society.

But what of positive measures for discovering and encouraging talent?

Consider first the role of patronage, a word not much used in the U. S. where it is called support. In the past, in the Old World, patronage came almost entirely from the Church and from the Prince. Most of the patronage of music, art, and architecture was religious; increasingly much as well as that of education, of science, and of learning came to be from the State. This was true in Athens and Rome; it was true of the Florence of the Medici, and of the Milan of the Sforza; of the England of Elizabeth or the France of Louis XIV and his successors. It was the Esterhazys who provided patronage for music in the old Empire, and Duke Karl August of Weimar who maintained Goethe at his little court, and Godoy in Spain who tried to revitalize the academies and the universities.

To what institutions can we look for patronage—for support if that is a more democratic word—required by science, learning, the arts?

We have two traditions.

First, we have the tradition of private philanthropy: the endowment of colleges, the establishment of hospitals, the creation of great collections of art which so often go into public museums. Private philanthropy has increased with the passing years.

But let us not overlook the fact that the patronage of private philanthropy for our great private institutions of learning and art and music is made possible by our tax and inheritance laws. The British are just as philanthropic minded as we are, but they cannot create these great institutions by private philanthropy because there is no tax deduction in England for money given to a university or to a hospital or to a museum and inheritance taxes (which are more realistically called death duties) are far higher than they are in the United States. Our own private philanthropy, by large measure a function of our political system and subject to change by our political system, is traceable to a kind of enlightenment in our political system.

So too with the role of our great American devisal, the Foundation. A few of these abroad—the Rhodes Trust comes to mind, or the great Carlsberg in Denmark which makes it such a spiritual satisfaction to drink beer there—but it is the U. S. that has given this institution a creative role in science and culture. The foundations too are creatures of politics, their boundaries marked out by the political processes and their revenue bases creatures of tax exemption.

The second tradition played a decisive role from the beginning: the tradition of patronage by the democratic state. Harvard College of 1636 was in part the creature of private philanthropy but it was also the creature of the Bay Colony. Government, local, state, and eventually national, has been responsible for most of our educational system, the largest and most flourishing on the globe. Government maintains most of the great and large universities—more students go to state and municipal institutions than to private. Government helps sustain art museums, though not as yet symphony orchestras and opera and ballet—that help will doubtless come with increasing need and increasing sophistication. Government subsidizes, in community after community, scholarship and science.

But it is asserted that government subsidies are very dangerous; that government intervention in the realm of the mind and the spirit is dangerous. Government cannot be

trusted to keep its hands off these matters, which should be left free, it is said; government cannot be trusted to understand how to foster creativity or maintain excellence.

There is a good deal of truth in these allegations. It is a very dangerous world we live in; there is danger on all sides.

But I put it to you that whatever government has done it has done well, and I put it to you that our own record in this arena of government relationship to art, science, literature does not give us cause to suspect the competence of government.

The Federal government or the national government intervened in the realm of education at every level as early as 1780, and it has been intervening in one way or another, through land-grants of one kind or another, through the benevolent contributions from the Morrill Act, through the Hatch Act, through various Acts throughout our history. Nor is it alone in the realm of education that government at the national, state, and local level has taken on responsibility. I never cease to be surprised at those who are frightened by the spectre of government entering fiscally or otherwise into the realm of literature or of art. One might suppose we had no experience here. The Library of Congress is rather an ancient institution by now; the Smithsonian Institution has been going for 135 years; the National Gallery; the U.S. Weather Service; the Department of Agriculture scientific and research activities; the U.S. Coast and Geodetic Survey; the Bureau of Standards; the Geological Survey; the Public Health Service: the U. S. Botanical Gardens: the National Archives—I do not begin to exhaust the enormous list of activities where government is in control, not just intervening. And I think it would be difficult to find any serious examples of untoward interventions in the scientific, literary, or artistic affairs of these institutions.

The recent history of government subsidy to education and science is very much in our minds. Government today

pays for over 75 percent of all scientific research in universities, to the tune of almost one billion dollars. Altogether it pumps some 12 billion dollars into research and development.

There are grave dangers, and all educators are aware of them. I do not say that the money is wisely spent. Much of it is frittered away on the wrong kind of research. But I do assert that our record over 150 years is one to inspire confidence in ability of government to provide patronage to learning and science; that over this long arch of years there has been relatively little intervention and in the realm of higher education more academic freedom in American universities than in German, even though Germany invented the idea and the word. And I assert too that the ability of government to learn only since the Second World War that if it is going to get results it must leave scientists alone; and that the concept of scientific research must be broad enough to embrace the social sciences and the arts as well—that these things are very heartening.

I am not therefore disturbed about the source or direction of patronage. But I am concerned about what patronage cannot itself do—create talent. How do we go about the discovery of talent?

This consideration belongs to the realm of what I call contingency and its implications. I called to your attention earlier the explosion of talent and genius in 5th century Athens and 14th century Florence and 17th century Holland and England. How do we explain it? How do we explain the phenomenon of a little city of 100,000 population bursting with more artistic and literary geniuses than the whole of Italy has known in the last 200 years? How do we explain England's conquest of the globe in the days when the total population of Britain was only 5 million? How do we explain the extraordinary outburst of vigor in the 18th century France, or 18th century Paris, which boasted in one

generation Voltaire, Montesquieu, Diderot, D'Alembert, Raynal, Buffon, Turgot, Lavoisier, and a dozen other world figures in the realm of science and philosophical thought? How do we explain the extraordinary outburst of musical genius in a little village like Salzburg in the last quarter of the century? Or the outburst of political genius in Virginia at the same time?

These things cannot be fortuitousness. It defies common sense to suppose it was just a series of coincidences that produced a Haydn, a Mozart, and a Beethoven at the same time and place.

I think it is, in part, contiguity. I think it is, in part, that society sets up, though not in any formal fashion, the ideal of what it admires; what it wants to be.

This principle of contingency, this principle of imitation, serves effectively to explain why men want to be particular kinds of men in a particular kind of society in a particular kind of culture. I think the principle still operates. And how astonishing that one man or even a small group of men, even now, can change the direction of public interest! How astonishing was the shift from a Hoover to a Roosevelt administration. We need not come closer to our own day for a comparison of that kind. The discovery of a hundred new talents, the feverish excitement spread over not only Washington but the whole country. Everyone becomes conscious of the possibilities of politics and of public service. How remarkable that even today at Amherst College, whose student body does not differ very much from that of other colleges of its size, every student knows that to be like Robert Frost is to achieve greatness. A single man can change the whole atmosphere of an institution.

What this suggests is that one way to discover and encourage greatness in our society is to devote ourselves whole-heartedly to that pursuit. It means in the realm of education that it may be less important to have the most modern labo-

ratories and the best stocked libraries than it is to have a Robert Frost or a Werner Jaeger or a Richard H. Tawney; that we should provide the young with the spectacle of greatness.

The principle of contingency means a shift in the center of gravity from private to public enterprise. A society that is dedicated to private enterprise and glorifies it; that is inclined to equate public enterprise in some subtle way with socialism; a society which celebrates the individual doctor attending his patient as a hero but decries socialized medicine as a curse; or one which celebrates the private engineer as a prototype of the American Way but looks upon TVA as a pernicious activity—such a society cannot expect to excite in the young an enthusiasm for public service.

It is worth remembering that the great men who made the American Republic—the Franklins and Adamses and Jeffersons and Washingtons and others—were men who gave themselves, unreservedly, to the public service, to the commonwealth.

Another way to encourage the discovery and nourishment of talent is to understand the problem of Change. It is a fascinating problem. What causes change—change in styles, change in habits, change in morals, change in policy? Why is it that change is so much easier in the realm of physical science than in the realm of social science? How does it happen that some nations or peoples are able to change more readily than others—or more readily at one stage of their development than at others?

That is the real problem. How do we bring about change in those areas where we know it has to come? Why does it take the South so long to adapt itself to the 20th century where the Negro is concerned? What afflicts South Africa that it is unable to see the injustice of its way—or what the rest of the world thinks of as injustice? What lack of imagination is responsible for the inability of the average Ameri-

can to accept the fact that Communist China is indeed a nation, and a great power? Or for our failure to take in the consequences of nuclear warfare?

The outlook here is not wholly bleak. We have, in fact, displayed a quite remarkable ability to change in some areas, in some attitudes. Contrast the attitude towards the League of Nations in 1920 and towards the United Nations in 1945—just one generation separated these two, but it was a generation that had learned something from history. Contrast the attitude towards such things as federal aid to education just a decade ago. I can remember when I was warned not even to talk about the matter in one State. What a change in a few years. What capacity for change in our attitude towards science, and in support to science, and to new kinds of science. We need to know why a society is prepared to change in some areas, and reluctant to do so in others.

I suspect that readiness-to-change is a product of three things: first, necessity; second, education; third, imagination. We have little control over the first; we have some ability to manage the second and are doing it; the third baffles and challenges us.

Finally, a condition of greatness—its discovery, its nurture, its exploitation—is of course freedom.

This seems almost too obvious to state. Yet its implications are not entirely obvious—at least many of us fail to see what those implications are, or the requirements of freedom.

There is a threat to freedom from Bigness itself—a threat that is innocent of evil intention, but none the less potent. Big Government, Big Corporations, Big Universities—Bigness in all of those things that fix the latitude and the longitude of our thinking and our conduct. Is talent, excellence, creativity compatible with Bigness? I remarked previously on the birth of great civilizations in small societies, as that the colony of Virginia, with a white population one-tenth of that of the District of Columbia today and none of its ad-

vantages and facilities, produced in one generation Washington and Jefferson and Madison and Wythe and Marshall and Henry and half a dozen other statesmen. It is sobering to reflect that most of the great scientific discoveries came from individual scientists or thinkers, brooding in their studies or tinkering in their laboratories. It is sobering to recall that the great works of scholarship are the products of the individual scholar, not of committees. But I need not enlarge on anything so familiar. I am not proposing that we go back to the old Cavendish of Cambridge—even Cambridge, which cherishes the ideal of the lonely scholar, has rebuilt the Cavendish. Nor am I suggesting that we break up either Big Government or the AT&T or the Department of Agriculture.

But we can, and I think we must, return to the individual, to the small manageable organization; otherwise we will all spend all of our time managing our machines and they will manage us. There are models and they commend themselves to us. In education I think Oxford and Cambridge are models because they have broken down into small colleges, and that is what many of our institutions are doing now— Harvard with the House system and Yale with the college system, and California with its network of smaller colleges and universities (smaller by California's standards). In government we have the TVA as a model, the TVA which—as David Lilienthal made clear to us now two decades agoaccommodates itself to the needs and to the culture of the communities it serves. The Foundations are turning increasingly to the individual, are inclined more and more to bet on men of talent, rather than to launch great projects although I know there are exceptions here.

The problems that confront our society are so immense and so complex that individuals cannot in the nature of things master them. This is true in science, in governmental affairs—imagine trying to master the whole of the Alliance for Progress, or the AID program or UNESCO, even. But we can, each of us, in our own activities, in our positions of authority lend our support to the fragmentation of power and the fragmentation of size. Each can remember that traditionally, at least, greatness has been individual—the greatness of the artist, of the musician, of the scientist, of the jurist, even of the soldier.

What John Stuart Mill said a century ago in his famous essay On Liberty about the threat from the State is relevant to the threat from bigness and from power whatever form it may take: "The worth of a State in the long run, is the worth of the individuals composing it; and a State which postpones the interest of their mental expansion and elevation to a little more of administrative skill, or of that semblance of it which practice gives, in the details of business; a State which dwarfs its men, in order that they may be more docile instruments in its hands even for beneficial purposes—will find that with small men no great thing can ever be accomplished."

Another aspect of Freedom is the need for original, creative, and courageous thought. This will not come by itself. The premium has been on conformity, on the well-adjusted child, on the organization man. There is perhaps less of this than there was a decade ago, but there is still a great deal as all of us know. How does society get itself a corps of independent thinkers, men and women whose business it is not to be part of their particular society, not to serve their immediate masters, not to accept the premises and the assumptions that everyone else appears to accept, not to lend themselves to the dominant public purposes of the time?

Needless to say we have, at least potentially, just such a corps of men whose business it is to be different; whose business it is to think far ahead: to think in terms of a larger than national constituency. I refer to the University.

For the business of the University is to provide a body of

men and women who are, by virtue of their position and their duties, liberated from most of the pressures of their society. Men and women who are required to be independent, in their research and their philosophy, of race and faith and nation and even, insofar as possible, of time. Their function is precisely to transcend the boundaries of space and of time: to think independently, to look objectively even at their own country, their own race, their own faith. The scholar and scientist in his personal life is loyal to his own institution and his own immediate community. But he belongs too to a larger community, the great community of learning which stretches back to the remotest past and forward to the imaginable future; whose members are not a single people or nation but the human race, and whose faith is that of scientific and scholarly integrity. A society that seeks for excellence, that nourishes leadership, that hopes to find a natural aristocracy to help solve problems, must create and sustain and protect this community of scholars. At its peril does it fail to do so.

Such a community of scholars must assume the responsibility of that lonely task, the task of being different from others in society, of divorcing themselves in their thinking and their planning from the immediate demands upon them, from the claims and requirements of their nation, of their state, of their community, of their faith and their race. They must be able to look a hundred years in the future, and plan for the kind of world that may come then. In all these things, they must take to heart, as all of us must take to heart, what is perhaps the greatest admonition ever made in the realm of literature. I refer to that of Pericles in the Funeral Oration; That: "Knowing that the secret of happiness was freedom and the secret of freedom a brave heart, they did not stand aside from the onslaught of the enemy."



OFFICIAL SECRECY AND INFORMATION POLICY

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Nearly every axiom, every cliché, of a democratic or representative republic implies the need for popular access to information concerning public affairs. Government by consent of the governed; "government of the people, by the people, and for the people"; these and other principles of a free society would seem to require that government be carried on under continuous surveillance of an informed people. "Give light and the people will find their own way," "Open covenants openly arrived at," "Only an informed people can be free and only a free people can be informed" are other slogans that point the same moral.

The idea of an open as distinguished from a closed society rests on the same assumption—an assumption deeply rooted in the traditions of Western culture. "There is no greater good in a state," said Plato in *The Laws*, "than that the citizens should be known to each other." Lewis Mumford, in his recent book, *The City in History*, says that a distinguishing characteristic of the Greek City State "was the fact that no part of its life was out of sight or out of mind. . . . All that men did was open to inspection alike in the market, the workshop, the law court, the council, the gymnasium. . . ."

And so it was in the early New England town—a circumstance that led Tocqueville to say: "Town meetings are to liberty what primary schools are to science." And Emerson, writing in his *Journal* in 1853, described the politics of the

town as "the school of the people, the game which everyone learns to play."

The integral relation of an informed public and republican or democratic institutions was repeatedly emphasized by the founding fathers. "To furnish the citizens with full and correct information," said Jefferson, "is a matter of the highest importance." And he was later to observe that "If a nation expects to be ignorant and free, in a state of civilization it expects what never was and never will be...."

The whole tradition of the modern democratic state has been inspired on the one hand by resistance to secrecy in public affairs and, on the other, by insistence upon a right to personal privacy in personal affairs. And these principles have been accompanied by a faith in the ultimate wisdom of an informed public opinion. "The best government," said George Bancroft in 1835, "rests on the people and not on the few, . . . on the free development of public opinion and not on authority."

This faith in the good judgment of the people, according to Tocqueville, made public opinion "the standard not only of what is tolerable or in good taste, but of what is true."

Against this tradition, against this faith in public opinion, in "open covenants openly arrived at," are traditions that are equally ancient if not currently respectable. Plato may have praised a community in which all men were neighbors and known to each other, but his Republic was surely no model for an open society. On the contrary, it was a highly stratified society in which every class was to find its proper station and its duties, and the people were to be indoctrinated with certain noble myths to render them docile and obedient.

In the long history of civilization, government by monarchy, aristocracy, oligarchy, or cabal has been government by secrecy—and not by "open covenants openly arrived at." "The pride of the monarch or the aristocrat," writes

Professor Shils in his book on *The Torment of Secrecy*, "forbade the sharing of the knowledge of his actions or intentions with any large section of the population. Indeed, part of the very moral ascendancy and self-esteem of the absolute monarch and the aristocracy lay in their consciousness of possessing *arcana imperium* [that is, secrets] from which all others in society were excluded."

Louis XIV summarized the prevailing view when he declared, "L'Etat c'est Moi," as did James I of England when he said, "You must not inquire into the mystery that surrounds a king." That mystery not only included a tight-fisted policy on public information but all the other mysteries associated with the royal prerogative, the crime of lese majesty, letters de cachet, arbitrary arrest and detention, interminable interrogation not unmixed with torture, and all the iniquities of the star chamber.

Apologists for absolutism from Thrasymachus to Machiavelli, from Hobbes to Adolf Hitler, have defended government in camera as a necessary attribute of political power. The familiar formula of "Raison d'Etat" has served to rationalize not only official secrecy but official deception and duplicity. In the Republic of Plato we read, "To the rulers of the state . . . it belongs of right to use falsehood, to deceive either enemies or their own citizens, for the good of the state; and no one else may meddle with this privilege." As Machiavelli observed, the Sovereign must play the roles of both the lion and the fox. "A prudent ruler ought not to keep faith when by so doing it would be against his interest ...," he said. "If men were all good, this precept would not be a good one; but as they are bad and would not observe their faith with you, so you are not bound to keep faith with them."

Government by secrecy and stratagem, by deception and duplicity—even when they are rationalized as "noble myths"—has been historically associated with government

by an elite of some kind based on heredity, property, race, religion, or intellect. Hamilton, for example, bluntly characterized the public as a great beast "which seldom judges or determines right."

"I am not much attached," he said, "to the majesty of the multitude.... I consider them... as very ill qualified to judge for themselves what government will best suit their peculiar situation.... The ancient democracies, in which the people themselves deliberated, never possessed one feature of good government. Their very character was tyranny, their figure deformity. When they assembled, the field of debate presented an ungovernable mob not only incapable of deliberation but prepared for every enormity."

Edmund Burke, to cite one other example, took a dim view of the capacity of the public to govern. "There is," he said, "no qualification for government but virtue and wisdom. . . . Everything ought to be open but not indifferently to every man."

A like skepticism of public opinion was shared by many of the founding fathers of the Constitution—John Adams, Madison, Gouverneur Morris, Roger Sherman among others.

It is a commonplace to note that the people generally are, at best, but poorly informed concerning public affairs. According to a survey of the National Opinion Research Center, over 65 percent of a national sample had either never heard of the Bill of Rights (31 percent) or, having heard of it, knew nothing in particular about it (35 percent). Another 12 percent claimed to know something about it but was misinformed, leaving only 21 percent with any accurate information about this most important part of the Constitution. Another study revealed that 50 percent of adults interviewed didn't even know what a tariff is. Still another survey showed that 23 percent of the men and 41 percent of the women interviewed could not identify such

terms as "United Nations," "Atom Bomb," "England," or "Russia." Yet 85 percent of those interviewed had radios or television; 83 percent read a daily paper and 56 percent subscribed to a weekly magazine, and 50 percent had access to all three of these major media.

Human knowledge, even among educated people, is not only limited but highly selective. Most people are simply too busy with their own personal affairs to spend the time necessary to acquire information concerning problems not immediately within their own span of concern or control. And this is true of the average man's information concerning public affairs even though the decisions of public authorities may profoundly affect his life. Lacking information and without the will to acquire it, the average man when judging public issues is easily taken captive by rumor and gossip. To expect him therefore to reach reasoned conclusions on particular policies or the details of pending legislation is to expect the impossible. Only when these matters directly impinge upon his real or fancied interest will he stir himself to become informed and then probably only under persistent goading by the leaders of the particular pressure group whose interests may be affected and to which our sovereign citizen may belong.

What I have been saying is simply what Walter Lippmann and others have often said—that the idea of the omnicompetent or omniscient citizen is a myth. So, by the same token, is the idea of an omniscient or omnicompetent public opinion. Does all this, then, imply that government of the people, by the people, and for the people, or government by public opinion, is an illusion? I think not. What it does imply, however, is that the proper role of the public or of public opinion in the decision-making process must be understood and that the people not be asked to do what they are not likely to be able to do.

If the public then is unable to make reasoned decisions on

particular policies or on details of pending legislation, what is its proper role?

Walter Lippmann, in his recent book on The Public Philosophy, argues that "a functional derangement" has occurred in the United States between the mass of the people and the government. "The people have acquired power which they are incapable of exercising and the governments they elect have lost powers which they must recover if they are to govern." What then (he asks) are the true boundaries of the people's power? "The answer cannot be simple. But for a rough beginning let us say that the people are able to give and to withhold their consent to being governed.... They can elect the government. They can remove it. They can approve or disapprove its performance. But they cannot administer the government.... They cannot normally initiate and propose the necessary legislation..."

This is essentially what the historian Bancroft also said in 1835. "There are those," he said, "... who say... that the masses are ignorant: that farmers know nothing of legislation, that mechanics should not quit their workshops to join in forming public opinion. But true political science... maintains *not* that the people can make right (i.e., govern) but that the people can discern right."

If they are to discern right, if the people are to judge the government rather than carry on the government, they must be informed. "If," said Jefferson, "we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them but to inform their discretion by education."

We must remember, however, that the kind of education or information necessary for the general public to play its proper role will not be the same as that required by other more specialized publics. Members of the Farm Bureau Federation or the National Grange, or the Farmers' Union in the United States or Great Britain will have more interest and require a higher quotient of information concerning farm policy and administration than will persons outside those organizations. Certainly their leaders and, on such matters as acreage control, their rank and file may properly be called upon to participate in making particular decisions concerning agricultural policy. What is true of farm groups will also be true of other organized interest groups on other issues. I do not argue that these groups and their leaders should have a final voice in defining public policy as it affects their interests. On the contrary, public decision makers must look beyond these special interests if the public interest is to be served. This is true because for one reason the great majority of farmers, workers, merchants, and other "interests" in society remain unorganized. Even within the giant organized groups there are conflicting interests and countervailing powers that must be taken into account. Moreover, there is no assurance that what's good for the Farm Bureau Federation or the Farmers' Union, even when they are unanimous, is necessarily good for the country.

All I am saying is that if you look for an informed public opinion on public affairs, you're more likely to find it among those whose interests are directly involved than in what Walter Lippmann once called the Phantom Public. A major concern, therefore, for those who shape and administer public information policies is to see that the maximum relevant information reaches those who are the immediate objects, clients, beneficiaries, or victims of particular public policies and programs. For Agriculture, this public will be those who grow, process, or market food and fiber. For the Treasury, it will be taxpayers, importers, banks, and the other special publics served by this agency. For other government departments and agencies there will be other special publics. To withhold, suppress, or fail to make available relevant information to these special publics is not

only to betray a public interest but to invite political disaster.

Moreover, if a major agency of government is effectively to discharge its information responsibilities, it is imperative that there be within the agency itself a free flow of information among its various branches, bureaus, or divisions. No agency can consistently confront its public, let alone the Congress, if it is torn by dissension and conflict resulting from failure of intra-agency communication. You cannot operate a great department of government like an Oriental harem with relevant information on departmental policy available only to the current "favorites" of the Secretary or his acolytes.

No less important, of course, is the free flow of information not only within but among the various executive agencies themselves and especially among those of parallel responsibilities. Fiscal policies are not the concern of the Treasury Department alone nor are defense policies the exclusive province of the Pentagon. A free flow of information both within and among executive agencies is an essential condition of enlightened administration.

The volume, kind, and quality of information essential for intra-agency or inter-agency use will not always be the same as for the special public or publics the agency serves or for Congress or for the people as a whole. Technical and scientific information indispensable to the formulation or administration of policy within or among executive agencies need not, and perhaps cannot, be made available to the special publics of the agencies, the people as a whole, or even to the Congress. Information essential to effective operation of the AEC, the Defense Establishment, or other Executive agencies might be incomprehensible and hence meaningless to the general public or to the Congress. On the other hand, such information—notably that of a scientific and technical nature—may be indispensable not only to

the special publics of the agency—defense contractors and consultants, for example—but to the wider community of scientists and scholars upon whom the government is increasingly dependent for creative work. The point is that the effective "market" for information concerning public affairs is highly selective. A major problem of public information policy and administration is the analysis of the information "market"; i.e., of the nature, interest, and role of the various "publics" involved in the total decision-making process. Information under all circumstances should be made available in whatever form is necessary to enable each of these various publics effectively to perform its appropriate role.

Now a word or two about the role of Congress. Whether we think of representatives and senators as delegates or trustees of their constituents, i.e., whether we think a Congressman's responsibility is to his own state, district, or region, to the whole nation, or to the world; and whether we regard legislators as men of independent rational judgment or as so many puppets speaking for countervailing special interest groups; in any case we have to ask what role in the total decision-making process a multi-member body like Congress can appropriately and effectively play.

A representative assembly, as John Stuart Mill has said, is "radically unfit" to govern. Its proper office is "to watch and control the government; to throw the light of publicity on its acts; to compel a full exposition and justification of all of them which anyone considers questionable. . . ." Congress or Parliament, he continued, is "at once the nation's committee of grievances and its Congress of Opinions; an arena in which not only the general opinion of the nation but that of every section of it . . . can produce itself in full light and challenge discussion. . . ."

It is a commonplace of political science that the more numerous the assembly and the more varied its education, interest, and experience, the more likely is it to be influenced by emotion than by logic, by interest rather than by intelligence, by rhetoric rather than by reason. It is useless to deplore this since the role of such assemblies is, as Mill has pointed out, to speak for the many interests of which the nation is composed.

The concern of Congress is primarily with ends rather than with means, with goals and directions rather than techniques, with judgment as to how well policies promote the general welfare of the nation. Because this is so, the information Congress as a whole needs is information primarily concerning the goals and purposes of public policy and only incidentally concerning technical details of research and planning, organization and administration. I realize that these distinctions are often fuzzy and obscure, and that the means employed to achieve a given end may be as important as the end itself. But Congressmen as well as private citizens suffer quite as much from a surfeit of statistics and semantics as from executive secrecy. "Why don't they tell us what they want?" "What is the administration trying to do?" These are complaints that one can hear in Congressional cloakrooms and in drawing rooms and barber shops across the land. Between the high-level abstractions of political oratory, abstractions ambiguous enough to mean many things to many different groups, and technical reports that only a Nobel Laureate can fathom, there is a middle ground. The problem here, I suspect, is not so much a problem of executive secrecy as it is of effective communication.

What I have said concerning Congress as a whole does not apply with the same force to Congress in its committees and innumerable subcommittees. As one moves to the subbodies, one moves from a forum in which expressions of interest and opinon are paramount to one in which interests, though still clashing, do so more frequently in terms of reasoned and even technical argument. The information required by the average Congressman properly to discharge his responsibilities on the floor of the whole House or Senate will not suffice for the Congressman who is a member of Ways and Means, Armed Services, or Atomic Energy. As everyone now knows, the committee system has, for all practical purposes, displaced the full house as the major forum for congressional government. The problems of public information and secrecy therefore come into sharpest focus in the relations of the executive branch with congressional committees and subcommittees.

These powerful engines of congressional government are not content to consider solely matters of policy, leaving administrative and other technical details to the executive agencies. They are not to be satisfied with information about ends or goals, however clearly these may be defined. They want to know also about means, even to the extent of requiring, under some circumstances, prior committee approval of administrative personnel and executive orders otherwise authorized by law. This preoccupation with detail, this passion for full information not only about the What and Why of public policy but also the How and By Whom of public administration, is a major factor in the continuing information crisis that has characterized government in this country. The recent investigation of Executive Privilege and Freedom of Information by the subcommittee on Constitutional Rights of the Senate Judiciary Committee, and the extended hearings of the Special Subcommittee on Government Information of the House Committee on Government Operations, are but contemporary outcroppings of an underlying and continuing source of legislative-executive tension over this problem. At the risk of oversimplification, may I suggest that the issue might be defined in some such terms as these: "How much and what kind of information does Congress, or a congressional committee, require to discharge effectively its responsibility as

a representative assembly and to play its proper role in the decision-making process?" As a corollary to this question one needs also to ask, "how much and what kind of information may or must an executive agency withhold in order effectively to discharge *its* responsibilities under the Constitution and the laws?" Problems relating to the availability of information and executive secrecy arise largely over the variable answers given to these questions.

The first conflict over this issue in our history arose in connection with a congressional inquiry in 1792 into the ill-fated expedition of General St. Clair against certain Indian tribes. In a communication to the Secretary of War, the select committee requested "that he turn over all the original letters, orders, and other records relating to St. Clair's expedition." After long consultation with his cabinet, President Washington outlined what to him seemed the appropriate principles to govern requests of this kind. These were—

First, that the House was an inquest and therefore might institute inquiries. Second, that it might call for papers generally. Third, that the Executive ought to communicate such papers as the public good would permit, and ought to refuse those, the disclosure of which would endanger the public.... Fourth, that neither the Committee nor the House had a right to call on the Head of a department who and whose papers were under the President alone, but that the Committee should instruct their chairman to move the House to address the President.

Washington had occasion to reaffirm this doctrine when in 1796 the House of Representatives called upon him for papers relating to the negotiation of the Jay Treaty. Disclosure or nondisclosure of papers relating to foreign relations, the negotiation of treaties, and reports from Ambassadors and other Presidential agents abroad have always been deemed subject to the absolute discretion of the Presi-

dent. Indeed in the area of foreign relations, the established and, I believe, the proper policy would seem to be not "open covenants openly arrived at" but "open covenants (often) secretly arrived at." Treaties and other agreements with foreign states, including so-called executive agreements, are and ought to be subject to congressional knowledge and scrutiny and, in most cases, that of the public. But the negotiations preceding or accompanying such agreements, or growing out of them, may be properly withheld even from the Senate.

The principles laid down by President Washington have been followed by his successors until the right of "executive secrecy" has become a well-established corollary of government information policy.

Few people today would question the essential validity of this principle as it relates to foreign relations and national defense. Official secrecy concerning purely domestic affairs is a different matter. In this area more people are likely to agree with Woodrow Wilson's statement that "government ought to be all outside and no inside. . . . There ought to be no place where anything can be done that everybody does not know about. . . . Everybody knows that corruption thrives in secret places . . . and we believe it a fair presumption that secrecy means impropriety. . . . Government, if it is to be pure and correct in its processes, must be absolutely public in everything that affects it" (*The New Freedom*, 1913, pp. 92–104). Yet Wilson, no less than other Presidents, found that a literal application of this principle was incompatible with his responsibilities as President.

Congress itself has time and again recognized the legitimacy of executive secrecy, even in domestic civil affairs. The Department of Agriculture, for example, told the Moss Committee that at least fifteen Acts of Congress either authorize or require it to withhold information. Laws establishing agencies such as the Federal Trade Commission and

the Securities and Exchange Commission forbid the disclosure of information concerning the internal affairs of business firms under their jurisdiction. Severe penalties have been imposed by law for the disclosure of information concerning certain activities of the Central Intelligence Agency, the Atomic Energy Commission, and the Federal Bureau of Investigation—even where they relate to purely domestic civil affairs.

Where the law itself does not impose secrecy upon executive agencies, executive orders issued under the authority of law do so. Two basic acts in this connection are the so-called "Housekeeping Statute" and the Administrative Procedures Act of 1946.

"The head of each department is authorized," says the Housekeeping law, "to prescribe regulations, not inconsistent with law, for the government of his department... (including) the custody, use, and preservation of its records, papers, and property...."

This statute was amended in 1958 to provide that "This section does not authorize withholding of information... or limiting the availability of records to the public." What difference this has made in actual practice I cannot say.

The Administrative Procedures Act of 1946 provides that:

"Save as otherwise required by statute, matters of official record shall in accordance with published rule be made available to persons properly and directly concerned except information held confidential for good cause found." (Italics added.)

The right of executive agencies to withhold information has, with a few exceptions, also been upheld by the Courts. A leading case, *Totten* v. *U.S.*, 92 U.S. 105 (1876), held that "a suit against the government could not be entertained if it would inevitably result in the disclosure of a state secret." Totten had allegedly been engaged by President Lincoln to

carry on espionage behind Southern lines and the purpose and details of the contract with him were held to be beyond inspection even in a court. State secrets of this kind are clearly beyond the reach of the public, the courts, and probably Congress itself. Other cases have upheld the right of executive agencies to withhold information although when the government initiates a criminal proceeding, as a rule it cannot refuse to disclose relevant information, even if confidential, unless it is prepared to forfeit its case.

The power of Congress to compel the disclosure of information is, of course, theoretically limited to those affairs over which it has constitutional power to legislate. But this reservation has been applied by the Court mainly to protect private citizens rather than to limit congressional efforts to breach executive secrecy. (Compare, in this respect, Kilbourn v. Thompson, 103 U.S. 168–1880, and U.S. v. Rumely, 345 U.C. 41-1953, with McCrain v. Daugherty, 273 U.S. 135-1927, and U.S. v. Harriss, 347 U.S. 612.) As a general rule one may say that in spite of recurring complaints, Congress through its committees has had access to as much information as it has cared to command or to request. To be sure there have been occasions when it has had to extort information from reluctant bureaucrats. One thinks of the classic investigations of the Grant and Harding Administrations, of the Gold Conspiracy, the Whiskey Ring, the Star Route Frauds, and Teapot Dome. More recently, one recalls investigations of Dixon-Yates, Strategic Stockpiling, and many more where heroic efforts were necessary to get at information which the Congress deemed necessary to the proper discharge of its responsibilities. But executive resistance to requests for information has been but one factor in the passion for secrecy that has characterized American politics for many years. No less important have been the restraints which Congress itself has imposed upon the free flow of information by law and by a sense of self-restraint

which makes committees as cautious in seeking information in some areas as they have been zealous in others.

Important areas of the Federal government remain enveloped in mystery—protected not only from the scrutiny and surveillance of the general public but of Congress itself. As the Moss Committee has said:

The problem of protecting national security during World War II and the ensuing cold war added several layers to the paper curtain—all imposed in the name of patriotism... And under this aura of respectability, bureaucratic secrecy, even in areas far removed from national security, has continued to spread with the stealth of a noxious weed.

In the endless corridors of Washington one can hear stories of such labels as "classified," "secret," and "top secret" indiscriminately applied to papers as important as the technical design of a new weapons system and as frivolous as intra-agency communications concerning annual leave schedules.

Executive secrecy needs no elaborate justification when applied to delicate on-going negotiations, or when used to protect private individuals from senseless and malicious exposure, or when it prevents misuse of official information for private gain or safeguards technical and scientific information essential to national security. But the virus of secrecy feeds on other meat less palatable to a truly open democratic society. It feeds on increasing specialization, on the meteoric expansion of science and technology, on the growth of large-scale organization. It feeds upon what Max Weber has identified as an occupational disease of large bureaucracies. In his language, "Every bureaucracy seeks to increase the superiority of the professionally informed by keeping their knowledge and intentions secret. . . ."

This they do not only to avoid the idly curious, the busybodies and gossips looking for any breath of scandal. They do so also in order to keep legislators in the dark about technical details they can't or won't understand but which, once exposed, can jeopardize urgently needed appropriations. There are even more subtle reasons for bureaucratic passion for secrecy. To be possessed of "official secrets," to be "on the inside" of operations from which others are excluded, can exalt one's ego and minister to that hunger for prestige that is a universal human trait.

And, of course, secrecy feeds on the bureaucratic passion for personal security. "Silence is golden" in an hierarchical power structure where "to stick your neck out" is to risk your job.

To understand the necessity for secrecy under certain circumstances, to understand that different publics play different roles in the total decision-making process and therefore have different information needs, to understand at least some of the forces at work to produce the "paper curtain" that shields government from public scrutiny, will help but cannot cure what Professor Shils has called the "torment of secrecy" that has characterized our recent history. We shall have to recognize that in our open society, with a free and responsible government, official secrecy is an evil-even if at times a necessary evil. As J. R. Wiggins, editor of the Washington Post, told the Moss Committee, "To diminish the people's information about government is to diminish the people's participation in government.... The ill effects (of secrecy) are the same whether the reasons for secrecy are good or bad. The arguments for more secrecy may be good arguments in a world that is menaced by Communist imperialism.... They are nevertheless arguments for less freedom."

A case can be made for the need for privacy (or secrecy) on the part of public servants as analogous to that in private life. Interpersonal tension and conflict whether in private or public life may more easily be resolved in secrecy than

when exposed to public gaze and comment. The framers of the American Constitution, we are reminded, were well advised to conduct their proceedings in strict secrecy. Had the many interpersonal and interfactional disputes that characterized those deliberations been exposed to the public, the entire enterprise might have failed. Successful deliberation, it is argued, let alone negotiation, among individuals, groups, or nations having different interests, is impossible under the glare of klieg lights and the eyes of commentators, scribes, and pundits who thrive upon conflict rather than conciliation.

Congress itself recognizes this in the frequent use it makes of executive hearings. The Congressional Quarterly on April 27, 1960, reported that since 1953 from 30 to 45 percent of all congressional committee meetings had been closed to the public. In some cases executive sessions are closed even against other members of Congress. Executive secrecy, it has been argued, is essential not only to facilitate deliberation and negotiation but to protect private persons appearing before official bodies from needless and embarrassing exposure. Official secrecy in such cases becomes an important safeguard of the cherished right to personal privacy.

And most common of the arguments for secrecy is the need to safeguard state secrets from the prying eyes of enemy agents and garrulous gossips as well as from those "inside dopesters" who commercialize such information.

This is by no means the whole case that is customarily made for official secrecy but it indicates the general line of argument. What it fails to state are the hazards involved in the systematic withholding of information. Secrecy furnishes a shield for the corruptionist and the faithless public servant. It serves to conceal graft, incompetence, and inefficiency in the public service. It has become identified through long and painful experience with star chamber pro-

ceedings, with the denial of basic principles of due process, with intimidation and even torture. Under the guise of protecting the nation's security it can seriously impede the scientific research and development upon which that security depends. It is an axiom that secrecy is the enemy of science and learning, for without freedom to inquire and to publish, scientific research degenerates into an empty ritual. As science becomes more highly specialized, scientists become more interdependent. And as they do so, free communication among them becomes indispensable. We ought by now to know that the secrets of nature are accessible to trained minds whatever their race, language, or nationality. Official secrecy in the name of national security can be self-defeating. "Suppose," said the late Karl Compton, then President of M.I.T., "suppose about the time most of us were boys...some agency like the War Department had conceived the idea that (the newly developed automobile engine) might be very useful as a future military development and had . . . (imposed) secrecy on the further study of high octane fuels, metallurgy, thermo-dynamics and engine design ... and (had prohibited) publication of results unless (some) commission thought that they would be of no aid to any foreign government. . . . Our own development of the automotive engine and the great automobile and aircraft business would have been greatly retarded and other countries operating without such restrictions would have forged ahead of us."

It is an open question whether the strict secrecy under which so much research in this country has been carried on since World War II has not cost us more in arrested scientific development than we have gained by keeping information from the enemy. A relaxation of secrecy may be one of the best steps we could take to promote our national security. In a recent article on the "Perilous Illusion" (that Secrecy means Security), Professor Edward Teller has said: "Our safety no longer lies in keeping all we know to ourselves but rather in the speedy production of new and useful ideas. Since free discussion is the lifeblood of progress, less secrecy would result in more speed. . . . For the greatest possible scientific and technological advance the United States and the other nations of the free world should pool their efforts and information. Our secrecy in nuclear weapons has erected a barrier between ourselves and our allies resulting in a duplication of effort, waste of time and waste of money." (New York Times, November 13, 1960).

Even our preoccupation with secrecy in general intelligence operations may be something of an illusion. As Professor Shils has said, "In order for knowledge obtained by espionage to be used, it must pass through a very elaborate process of analysis and through many offices. The probability of being mislaid or passed over... is certainly not negligible. Then when it reaches the person who can utilize it, he is faced with the question as to whether it can be trusted." Spies are notoriously given to deception. Some of them are "plants," and many are not highly esteemed for their integrity or reliability. The spy business, I suspect, has been greatly overrated and overromanticized.

Secret intelligence about a nation's general foreign policy is also often either suspect or useless since foreign policy in operation is usually highly visible. Information concerning industrial, communication, transportation, and other facilities is usually accessible in the free world from official documents supplemented by reports of economic, cultural, and technical personnel. In the whole vast area of international intelligence operations, secrecy is probably of doubtful value save only in safeguarding information about technical military installations, weapons systems, and strategic and logistic plans and operations.

The blight of secrecy can have even wider and more subtle consequences than those I have mentioned. By draw-

ing sharp distinctions between those who have and those who are denied access to information, between those who are thus trusted and those who are not, between "insiders" and "outsiders," a policy of secrecy inevitably raises questions of loyalty and disloyalty among large segments of the population. It is no accident that the postwar passion for loyalty probes and loyalty oaths, for quasi-hysterical crusades not only against subversives but against nonconformity of every kind, accompanied a vast increase in official secrecy. The more secrets a nation has to guard, the more sedulous it must be in protecting itself from those who might breach the wall of secrecy. And since one can never be quite sure who these may be, one must be forever alert to detect them. Suspicion, superstition, mutual mistrust, fantasy, and fear thus feed on the ignorance that is born of secrecy. In such an atmosphere every deep laid tribal fear becomes a monster to haunt those who must find easy answers for the mysteries with which they are compelled to live. Xenophobia directed not alone against the foreigner beyond the gates but the alien enemies within becomes a national obsession. As the fever mounts, no one really can be trusted, and hence everyone must be kept under careful and continuous surveillance. Thus we confront the paradox of official secrecy destroying personal privacy which is the bedrock of personal freedom and security.

What, then, can one say about the legitimate scope and purposes of executive or official secrecy? First, that in a free society official secrecy is an evil except as it is applied (1) to prevent the misuse of official information for private ends, (2) to assist in law enforcement, (3) to protect personal privacy, (4) to safeguard national security, or (5) to assure the opportunity for free, untrammeled deliberation or negotiation by responsible decision makers.

Second, that official decisions once arrived at should be always accessible to everyone within the jurisdiction of the decision-making authority. The formula here might be "open covenants even where secretly arrived at."

Third, that the terms used to justify official secrecy, such as law enforcement, national security, effective negotiation or deliberation, must be strictly construed to allow for maximum accessibility to official information; and that the right to personal privacy must be liberally construed.

Fourth, that in all cases where official secrecy is applied, the burden of proof should be upon those seeking to withhold information rather than upon those claiming access to it.

Fifth, that where private rights or the public interest may be adversely affected by official secrecy, the relevant information being withheld or the public proceedings involved must be made accessible upon the order of a court of appropriate jurisdiction after proper notice and hearing.

These safeguards are meant to be suggestive only, not exhaustive of others that may be necessary. Perhaps Congress or the President or the Supreme Court will some day formulate a new decalogue or bill of rights to govern public information policy and to mitigate, if not eliminate, the torment of secrecy which now threatens our free and open society.

THE POETRY OF DISCOVERY

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The object of thought is the discovery of some order in the chaos and uncertainty of our existence. Thought is an exploration of infinite variety and continuous change in a search for the enduring, the unifying, and the universal. Albert Einstein said:

It is existence and reality that we wish to comprehend.... And when we strip this statement of its mystical elements we mean that we are seeking for the simplest possible system of thought which will bind together the observed facts.

Behind this effort, Einstein said, is the basic belief

that existence should have a completely harmonious structure.¹

Thought is a process. When it occurs it becomes action. The act of thought is simultaneous with profound electrochemical changes in the brain, and this activity excites a chain of consequences in every other part of the human body. While it lives, the brain functions continuously, and thus the body which contains it is never static or motionless even in physical recline or in sleep. Human life exists on a planet which spins on its axis and revolves rapidly around its star. The continuous movement of the planet is a condition for human life. The planet's star, one small

speck in an exploding Milky Way, is hurtling at a fantastic speed on an unknown course outward through space. The movement of the star is a condition for the life of the planet. The space through which our star moves is of unknown limits, filled with the motion of expanding and contracting stars, gigantic galactic bursts, swirling clouds and currents of infinite variety—a seething cauldron of things and forces, changing and in motion.

In such a cauldron what light is cast by the feeble candle of what a man thinks? In such a universe what is universal? What endures?

Being humans we have a choice of different platforms from which we may launch our thoughts. It is not necessary to think about ourselves in terms of brains related to exploding stars. We have the capacity of perspective and within limits we are capable of choice. We can ignore the universe some superhuman force made; godlike, we can create our own. There are New Yorkers, for example, whose universe is limited essentially to a place of residence, a place of work, and a long, dark, dirty, and noisy subway tunnel connecting the two.

Reading the Churchill books about the last great war, one meets a man who virtually alone decides to send hundreds of ships and armies from one place to another and, consequently, because one man saw it one way, great battles were won and the fate of nations and a civilization decided. Still, one cannot help but think of some man in the Whitehall bureaucracy who did not see it this way at all, for whom the great decision did not turn upon fleets, armies, nations, or civilizations, but upon tons of potatoes, tubes of toothpaste, bottles of Scotch, and boxes of tea.

As yet, no artist has painted a picture of the universe in all of its dimensions. Every painter confronts the perimeters of the canvas he chooses. The problem of a picture is set in part by the limits within which the artist decides to work.

The canvas may be big or small, but it has edges beyond which the paint simply will not go. This is more than a technical problem. The limits of the canvas influence the content of the artist's creation. If he is a good artist, aware of the limits, he will consider them in relation to techniques. Once he does this he will not just paint, but he will think and paint. And once he thinks about painting, he will be subject to all the limitations of human thought about canvas and techniques. In other words, the limitations of the way thought happens will apply to him.

Knowledge and Change

While thought may reach up toward the "completely harmonious structure," the soil from which it grows are facts. Facts result from human observation. Between this observation and the upper reaches of thought is an elaborate structure for classifying knowledge, for arranging the facts in some order, and for establishing relationships among them and between groupings of them.

A large library is an example of how facts and ideas are classified. Universities are organized in terms of the basic classifications, and academic politics result from groupings of scholars within the structure of classified knowledge.

Facts spawn facts; the proliferation of them is one of the most significant phenomena of our epoch. An extraordinary technology has erupted from the facts, and each new discovery sets the stage for subsequent ones. A new light-year built into a telescope adds volumes to our libraries, and as the rockets grow more powerful the human capacity to observe is extended dramatically. Radar and sonar enlarge the range of the human ear. Electrodes and X-rays pierce the insides of living things that man's eyes and hands could never alone enter. The sheer quantity of knowledge places an almost unendurable stress upon our mechanisms for classifying and absorbing what is known.

As each classification of knowledge grows larger, the mind is enticed deeper into it. At the same time, the range of subject matter to which any one man may apply his thinking powers is narrowed. In medicine and in law the general practitioner gives way to the specialist. Disciplines of allencompassing content, like philosophy and theology, recoil from the onslaught of the necessity to know a great deal about a very little. Not only is the dialogue between the scientist and the humanist impaired, but the conversation between the nuclear physicist and the biochemist becomes difficult and often impossible.

While the quantity of knowledge is overwhelming, the rate at which its content changes has tremendously accelerated. Flat planets became spherical. Radiation belts flow into the stream of our consciousness with the suddenness of a satellite's orbit. Electrons become waves and particles, subverting the classical law guiding the 19th century physicist that something is either A or not A.²

So great is the growth of fact and so far-reaching and rapid the rate at which its content changes, that a serious question besets us about what a fact is. For the educator who professes to "teach the facts," the prior question is "What are they?" Education is converted into the delicate and difficult art of selection, and, as the educational process approaches the frontiers of knowledge or the borderlines of ignorance, controversial aesthetic issues dominate.³

As observation increases and more facts and ideas accumulate, new syntheses unfold and old ones collapse. Systems of thought and mechanisms for classifying creak and wobble as they strain to accommodate the accretions and changes. Within an established classification like physics, Bohr's Principle is substituted for the old logic. New classifications are created to house new lines of thought, as in the case of Cybernetics. Old classifications combine and fuse into new forms like biophysics, biochemistry, or geopolitics.

Between the mind's initial confrontation of the varying and changing events and phenomena, and its magnificent productions through an Einstein's brain, is an intricate and enticing web of complicated processes and data. In the web men come to regard themselves and their fellows in pieces, and to accept this self-view and social outlook as the normal state of being men. The mere multiplication of mankind encourages this outlook. Three billion humans rapidly turning into four and within this century to be six, has made society impossible without the massive bureaucratization of intellectual, cultural, political, and economic life. In Orson Wells' new film of Kafka's Trial there is a horrifying scene reminiscent of earlier Chaplin insights. The film portrays an office the size of a football field, filled with thousands of metal desks lined in endless rows at which sit thousands of workers typing. The sameness of the mechanical act of typing is brilliantly illuminated by the inhuman cackling of a million metal keys beating against the hard rubber rollers. The metallic roar is something from another planet, and the creatures manipulating the machines are living things we barely recognize. But the important thing is that we do see in them shadows of recognizable creatures, shadows of civil servants sitting at rows of desks in ugly gray buildings, shadows of academic hacks sitting in departmental meetings, shadows of clerks behind counters who may be found at night sitting alone in lonely city-cells.

Observation: Frog and Stars

The thoughtful part of man begins with observation. Man's sensory apparatus is the beginning of his being. The man holding the test tube, the man painting the picture, or the man looking at the picture painted—it makes no difference. All begin with the magical power of human observation. So wonderfully powerful is this magic that human ob-

servation may be extended to comprehend what nonhuman creatures see.

Researches have recently been finished on how and what a frog sees. Among the interesting results of this research are these: a frog's eye cannot comprehend color. A frog cannot see a stationary thing—motion is required for his perception. A frog can only see curved lines—a straight line for him is nothing. Put a frog in front of a Paul Klee abstraction of black, white, and red rectangular shapes hanging on a wall, and presumably he will see a bland diffusion of nothingness. Indeed, he will not even see the wall. In front of such a painting a frog is neither transported into another world nor given any particular insight in his own. Even his instincts for survival will not be stimulated. For him the painting—which for us exists—does not exist.

In our human superiority we should not treat the frog's plight lightly. There is a passage in Harlow Shapley's intriguing book, Of Stars and Men, in which he observes the following:

The major part of our knowledge of the universe has in the past come through information provided by one sense organ alone—that of vision. Our eyes are, however, sensitive only in a small segment of the long radiation spectrum—they are sensitive from the violet to red-much less than two octaves. But ... we have now learned to explore Nature with radiations extending over a range of more than fifty octaves, a range from the cosmic rays of less than a billionth of an inch in wave-length, through gamma rays, X-rays, and the ultraviolet, up to the blue-to-red radiation our eyes record; and then from red to heat waves to radio and on to electric wave lengths measured in miles. We know and measure and use these off-color radiations not directly with the retinas of our eyes, as we do with light, but with artifacts, with the retinas, we might say, of photographic plates, Geiger counters, and photo cells.... It happens that the range of human vision

from violet to red covers that part of the radiation spectrum where the sun's light is most intense.

Mr. Shapley, a distinguished astronomer, conservatively estimates that there are one hundred million planets in the known universe capable of supporting intelligent life in some form. Many of these planets are probably rotating around stars bluer or redder than ours. About these he says:

If there are animals with vision on a planet near a hotter, bluer star than the sun...they probably are more sensitive than we are to light in the bluer section of the spectrum; and nearer a cooler, redder star... more sensitive to reddish light....

He continues,

Man has no built-in sense organs for either long wave lengths or for short wave radiations that are more violet than violet. He is blind, except to a narrow range in the electromagnetic spectrum. If he had been outfitted from the beginning with sensitive recorders throughout all wave lengths from hard X-rays to long wave radio, his knowledge of the world might have differed vastly from that which he has slowly developed by way of his restricted vision. . . . In fact, as an organism ambitious to know, and know deeply, [man] is rather primitive in his senses if not in sense.... Our sense organs... are limited in number, in range, in effectiveness.... Sense receptors, in quality quite unknown to us and in fact hardly imaginable, which record phenomena of which we are totally ignorant, may easily exist among higher sentient organisms of other planets.4

Presumably such creatures, living in the bluer or redder light of these other planets, may perceive not only what we "see" with our natural senses plus our technology, but even more! Put them in front of Paul Klee's painting, and they may "see" not only what's in it, but right through it!

The Control Box

In our own case what we "see," what we observe, is fed directly by our sensory apparatus into that anatomical mechanism which enables us to "think." The human brain, approximately 3 pounds in weight, is itself composed of something more than 10 billion cells. The brain is connected by a network of 86 main nerves to the rest of the human body. Our senses are the brain's informants—the windows between our being and the universe in which we exist. In addition to the 5 senses to which we commonly refer, there are several others—perhaps more than 20 some of which we do not yet fully understand. These include those which enable us to realize muscular tension, hunger, thirst, and nausea. Embedded in our skin are 3 to 4 million individual perceptors of pain, a half-million structures conveying the sense of touch or pressure, and 200,000 temperature "feelers."5

Spreading the brain's cortex out flat, it would cover an area of about 2 square feet—approximately the size of a standard newspaper page. On this area science is now developing "maps" portraying where and how phenomena observed by the senses are received in the brain.

For example, when a person listens to music nerve impulses representing the notes are flashed to a horizontal strip of cortex at the side of his head. Now imagine that the strip is exposed as he listens. Fine wires are placed at many points along the surface and attached to electronic recording equipment. Electrical signals representing different notes arrive at the strip and set up currents in wires located there. These currents are detected and charted.

Roughly similar experiments have been performed on surgical patients and laboratory animals. The findings reveal that the strip at the side of your head is a kind of natural keyboard. The highest notes you can hear come in at the back end of the strip. The lowest notes come in at the front end. In between, the entire range of notes is represented by a sequence of precisely placed points. The octaves are marked off at regular intervals of about a tenth of an inch from the back to the front of the strip, that is, from high to low notes. . . .

Every note . . . has its sites on these strips and sends electrical impulses there. . . . Obviously, if the site were stimulated artificially—say by touching them with electrical probes—you would hear that note clearly even though there was complete silence in the outside world. Theoretically, this offers the possibility of a new kind of subjective music played without instruments of any sort. You simply stimulate the proper points on the "hearing maps" of a person's cortex in the proper order. This doesn't mean that you have to touch the surface of his brain with a probe. The trick might be done by remote control, with radio waves. . . . By playing on the cerebral piano you could entertain him with classical music or perhaps a modern symphony composed especially for direct high-fidelity transmission to the cortex.6

One need hardly add that the aesthetic appreciation of electronic music could hardly occur before the intellectual conception of electricity had been achieved.

The brain has other sensory maps. On the cortex at the back of the head are the visual maps. . . . Other sensory fibres lead to the smell areas of the cortex . . . buried deep down in the walls of the chasm between the cerebral hemispheres. . . . In this way the brain sorts the information upon which its activities are based.

In nerve messages . . . patterns of pulses stand for the items of information being sent. But the interpretation of nerve signals depends first. . . on the place they arrive at. No matter how accurately senses have been coded . . . they will be misinterpreted if they arrive at the wrong place. . . .

Supposing you were listening to fast music...and the nerve signals somehow got switched to the wrong line, arriving at the visual areas of the cortex instead of the hearing areas. You'd 'see' the music as a mad rush of flashing lights, moving forms, vivid colors. Such mix-ups actually occur, and may result from 'crosstalk' between nerve fibres. Crosstalk is familiar to repair men of your local telephone cable. Electricity leaks away and you may find yourself listening in on someone else's conversation.... A certain amount of crosstalk takes place in the normal nervous system.... New evidence indicates that crosstalk between fibres of the right and left eyes has something to do with the mechanism whereby we see objects as three-dimensional solids.⁷

The exploration and mapping of the human brain is at a far more primitive stage than our exploration and mapping of the surface of the earth. But of one thing we can be reasonably certain: the various major components of the brain—the seats of reason and memory, of emotion and feeling, the part in which the instincts are situated—all are inextricably bound together by a complex but common electrochemical process.

Perception: Thought and Feeling

The brain is a functioning unit in which intellect, emotion, and instinct are locked together. Art and music occur within the confines of this unit, and the science of psychology as well as of medicine has had to confront this fact.

The problems of perception—not so much the mechanics of how the senses observe impulses and convey them to the brain, but what happens to these impulses when they enter the complex of the brain—are one of the most intriguing frontiers of psychology. Perception is a concept which seems to bind together the dynamics of how we think and how we create. An interesting and comforting line of thought emerging from this exploration concerns the common denominators tying together the dynamics of scientific thought and of artistic creation. Even the words the psy-

chologist has come to use to describe one process are of a kind we normally associate with the other. Here is how one psychologist describes the process of scientific thought:

Progress in science is made up of a small number of original inquiries that are usually followed by a larger number of routine inquiries. Neither of these types can occur without the other. The most important feature of original experimental thinking is the discovery of overlap and agreement where formerly only isolation and difference were recognized. The rational search in a closed system is . . . sustained by the emotion appropriate to that which is associated with the contemplation of form and beauty of form, and is aesthetic or akin to the aesthetic. The experimental thinker is sustained by the emotion appropriate to the chase, to risk, to adventure and to sport.⁸

Dr. Rudolph Arnheim, speaking of artistic creation—not scientific thought—uses this language:

The work of art may be regarded as the final solution of the problem of how to organize a reality pattern of given characteristics. The characteristics of the pattern may be described as directed forces that are being balanced, ordered, and unified.... The laws of perception are universal. They apply to the artist and the non-artist alike. Art should not be regarded as a mere projection of human personality. Visual forces have expressive meaning, and this expressive meaning can be described as the primary content of vision. In science greatest knowledge is achieved when all existing phenomena are reduced to a common law. The mature work of art succeeds in subjecting everything to a dominant law of structure. By treating all things within this law they are made comparable and the place and function of each thing may be clearly distinguished.9

Another study entitled "Imagery in Research Scientists" was devoted to the collection of data on mental processes which seemed typically involved in the way scientists went

about their work or solved their problems. Scientists were asked in what forms thoughts were handled by them. The study revealed that

Biologists and experimental physicists were primarily visual, while theoretical physicists used mainly verbal or other symbolic images. Psychologists and anthropologists fell mainly in the verbal group.

Dr. M. Agnew, writing about the experiences of five composers—Schumann, Mozart, Berlioz, Tschaikowsky, and Wagner—has commented upon

... the spontaneity of their imagery, primarily the presence of auditory imagery, but also evidence for their visual and kinesthetic imagery, and finally, in the act of composing, the importance of auditory memory.¹¹

Borderlines: Intuition and Inspiration

Within this realm of thought a vast territory remains to be explored. Behind and beyond the simple exclamation: "That is beautiful!", lies a body of thought which some would call a science. To the word "beautiful" itself the human mind attaches a value. Whether the aesthetic experience grows from human participation in the totality of living, or is a disinterested escape detached from and unique to all other aspects of being, depends upon how men think about the experience before, after, and perhaps even during its occurrence. Perhaps, as Professor Horace Kallen has written,

Art...supplies an environment from which strife, foreignness, obstruction, and death are eliminated. It actualizes unity, spirituality, and eternity in the environment; it frees and enhances the life of the self. To the environment which art successfully creates, the mind finds itself completely and harmoniously adapted by the initial act of perception. In the world of art, value and existence are one.¹²

But even as the philosopher describes the impulses which

concern us, he is helpless without the use of the intellectual distinctions which are the tools of his art. His "unity" in art depends upon the assertion of a "world of art" which may be as different from other human worlds as is a planet rotating around a yellow star from one whirling around a blue sun.

On the other hand, we cannot escape the mysterious and intriguing marshes of intuition and inspiration which seem to lie everywhere around the borders of thought, blending the unknown into the known, exciting reason, but always eluding it, leading us to know, but never quite being known.

I have heard Leonard Bernstein grope for words with which to describe that state of semisleep or reverie which generated, upon the regaining of complete consciousness, his most productive periods of creative thought. He has spoken of the mad dash from such repose to controlled action in the effort to retain the small kernels of inspiration.

Touching upon this same strange frontier, Einstein wrote:

The supreme task of the physicist is to arrive at those universal elementary laws from which the cosmos can be built up by pure deduction. There is no logical path to these laws—only intuition resting on the sympathetic understanding of experience.¹³

Perhaps it is true, as Gerald Piel, publisher of the Scientific American, has suggested, that the highest acts of human reason are themselves aesthetic in the same sense as the reaction to art. Piel has said:

The reduction of nature to reason is itself an aesthetic experience, full of moral implications because it always defines further the place of man in the universe.¹⁴

Environment and Culture

But if we would speak of "man in the universe," and of the aesthetic as among the human experiences, we should not forget the conditions imposed by the universe upon man, and by being human upon our experience.

We are stopped short by Harlow Shapley's blunt statement of the obvious:

Our sun was not made yellowish just to suit our visual sensitivity! On the contrary, our vision has evolved to fit our star's most abundant radiation.¹⁵

From this disconcerting fact we may expand or focus our thoughts. If we choose to expand them we may be moved to exclaim as Shapley does, "A one-planet deity has for me little appeal!" If we choose to focus them we end up with that 3-pound bundle of 10 billion cells whose peculiar evolution is utterly dependent upon the fate of one tiny, dying yellow star.

It is perfectly true that between an intelligence quotient of 80 and one of 180 there lies the possibility of a universe of differences. It is also true that between the culture of the communized peasant in the Peoples' Democracy of China and that of the white-collar worker in the Manhattan office there is a difference at least as big as the possible necessity for exploding a megaton bomb. But at least as interesting as these ranges of differences are the huge common denominators upon which they are based, and the possibility of a whole multitude of interactions within the range of difference given those common denominators.

The common denominators include a given biology, a genetic inheritance which makes men human, be they aborigines or operators of the Univac; and a given physical world, consisting of the yellow sun and a planet of finite dimensions, which for all practical purposes, for the present, each individual shares with a great many others. The impact of environment and culture upon the aesthetic sensitivities and propensities of individuals and populations underscores the universal human capacity to learn, change, and grow.

After all, as John Dewey observes, there is evidence indicating clearly that the human impulse for art predates the development of systems for thinking about it; that humans experienced what we call the aesthetic long before there were scholars of it; and that those who had such experiences were, according to the subsequent scholars, primitive. Great music moved men greatly long before it occurred to humanity to perform music in large halls, record it on disks, and organize it into one of those categories of knowledge musicology. The simplest of shelters had its decorative aspects, and remnants of the earliest bowls reveal inexplicable embellishments. Of course, we really don't know for sure what the primitive man felt as he watched the sun rise or as he stood before his cave paintings. But we do know something about ourselves as the sun rises and as we regard the ancient works of art, and thus we know something about the past and about eternity.

Within the cut of our own small second of time, great works of art hang in the museums and replicas of them on the walls of the homes of the factory workers. The Finns make rugs beautiful enough to merit hanging on walls, and other Scandinavians create shapes, forms, and designs in furniture beautiful enough to be called art. The release of American jazz has caused Polish feet to stomp, and poetry and dances created by modern Russians have held American audiences enraptured. Along the lines connecting these things and events is the possibility of influencing and cultivating the tastes and sensitivities of individuals and groups. Along these lines is the educational possibility.

The extent to which we may exploit this possibility turns upon our outlook toward the biological, cultural, political, and other differences among people. Are these differences insuperable obstacles to the cultivation of taste and the sense of what is good and beautiful? Do bigness and technology impose the dominant standards of the good, stifling

the aesthetic, or substituting an alien and subversive understanding of what it is?

These questions have a special currency in the United States in the light of what is popularly called an "explosion in the arts." And this occurs among a people possessing fantastic wealth, and an unparalleled maturity in technology, especially a technology affecting the traditional meanings of "Work" and "Play," and conveying cheaply and instantly ideas and forces which play directly upon the minds, senses, and passions of the masses.

The emergence of the national cultural center idea, the appointment of August Heckscher to the White House staff, and the renewed proposal for government aid to the arts all represent political phenomena with the potential of aesthetic consequences—both for individuals and for the society.

Seldom, if ever, has the cultural vitality and quality of nation-states figured so prominently in international politics. The aesthetic perceptions of nations have become factors in the political judgments about the values of national ways of life.

Some people deplore these trends and, more importantly, despair of the consequences of a massive, popular confrontation of the arts. They feel that television, radio, the film, and the cheap production and wide distribution of printed matter all are instruments for the prostitution of the arts and, ultimately, for the debilitation of the artists.

Behind the fact of the popularization of the arts is an assumption concerning the educability of the aesthetic perceptions of the masses. At best, this is a difficult assumption to make—at least as difficult as the assumption that we can successfully prepare the masses for the life of free men through a system of compulsory public education. But it is also an assumption difficult not to make in a nation per-

meated by the spirit of Equality of Opportunity and, in fact, committed to massive compulsory public education.

Technology, Institutions, and Cities

This is an exciting, difficult, and challenging commitment. But the implications of this commitment are confounded by three gigantic operational factors, the content and combination of which no people has before confronted.

First, the impact of technology upon the daily lives of our people has immeasurable cultural, social, and economic consequences. It extends almost beyond imagination the human capacity to observe and perceive, opening up whole new worlds of phenomena which may provoke the aesthetic response. We see things which literally no human before us has ever seen. Microscopic photographs of living cells portray fantastically beautiful images. The man peering out of the satellite's porthole sees, absorbs, and reacts to a vista of indescribable beauty. The technology permits the construction of buildings in ways never before thought possible. New shapes, forms, and transluscence encompass the spaces in which we work and live. Proximity to and use of the machines result in mysterious psychological reactions deep within the folds of the mind, and these reactions spill out onto the painter's canvas or the composer's manuscript in strange and unanticipated new forms. The human entity experiences wholly new sensations of speed and motion, of life itself.

But technology also places almost unendurable new burdens upon the rational and emotional mechanisms of the mind. The use of human muscles and bones takes new forms. Old employments disappear and new ones are required. A superstructure of life regulated by the machines increasingly closes nature out of the daily perceptions of men, and for many the sky, the mountains, or even the flight of a bird are remote or unknown experiences. Not only the

quantity of Work but the very meaning of Work is changed. And, finally, it is the technology which enables man to live longer and to multiply in number, so that the mere ages and quantity of his species affect drastically the relationships among his kind, and the quality of human perception.

Second, the advancement of technology and the growth of population have forced a new organization of human society, altering irrevocably the individual's conception of himself and his relations with his fellows. Almost every aspect of modern life tends toward institutionalization, and the institution in politics, the economy, religion, and even the arts dominates the opportunity for the expression of self and the understanding of society. The mere administration of modern life invades the privacy of the individual, and delimits severely the opportunities for making total decisions, diffusing the moral responsibility for the decisions, and often shattering the possibility of enjoying the fruits of what one has decided or created. Institutions become awesome, living monsters, consuming human beings in the administrative juices of their day-to-day operations. Administration by its nature is a team effort, and the team rushes down the field of daily life in a terrible phalanx, bowling individuals over like tenpins. Technology is a natural ally of the institution. Systems for organizing and processing data, methods of modern finance, techniques for market research and organizing and influencing mass opinion, and the machinery for the rapid reproduction of standardized items in great quantities strengthen the grasp of the institution upon the most intimate activities of the individual.

In the arts the institutions have come to play a key role. Patronage is democratized through the fund-raising campaigns of the great museums, orchestras, opera and dance companies, and universities. Audiences are mobilized by them. Publishing houses come to mean light or darkness for the struggling writer. The most casual observation of the

cultural institution reveals all of the ingredients of the modern industrial corporation. They consist of buildings and grounds, parking lots and managerial staffs, fundraisers and promoters—complete complicated administrative organizations of the cultural endeavor. Through their power to mobilize audiences and patronage, they are influential in the shaping of popular taste and sensitivity. And through this power they affect in new ways the life of the individual creative artist.

There is no retreat from the institutional character of modern life. That character is bound to have an impact upon what and how we perceive. One consequence of that character is the new emphasis upon the means of life at the expense of its purposes and ends.

The President of the United States, in his Yale address last June, said:

What is at stake in our economic decisions today is not the grand warfare of rival ideologies which will sweep the country with passion but the practical management of a modern economy. What we need are not labels and clichés but more basic discussion of the sophisticated and technical questions involved in keeping a great economic machinery moving ahead... I am suggesting that the problems of fiscal and monetary policy in the Sixties as opposed to the kinds of problems we faced in the Thirties demand subtle challenges for which technical answers—not political answers—must be provided... You are part of the world,

the President told his audience,

and you must participate in these days of our years in the solution of the problems that pour upon us requiring the most sophisticated and technical judgment.¹⁶

In conclusion, the President suggested that out of our exercise of "sophisticated and technical judgment" will emerge our new vision, and a demonstration to the world of our "superior vitality and the strength of the free society."

Perhaps it is inescapable that we should come to speak of our political, religious, artistic, and even personal lives in the vocabulary of the corporation. Perhaps it is inevitable that the future of our national experiment must be pinned upon the sophisticated administration of the new technology. However uninspiring this may seem to some, this is one of the facts of contemporary man in search for himself.

Third, the modern city is a unique focus of the technological and organizational implications of contemporary human life. Three out of four of us now live in these cities, and even more of us are destined to spend our lives and exercise our capacities in them. The urban combination of human talents is the basis of our technology, and in many ways the modern city is the most complicated and complete organization yet created by man.

Viewed as a work of art, the city is a kind of physical projection of the possibilities and pitfalls of human thought. From the variety of talents a true city contains, emerges a virile and aggressive environment, capable of magnetizing the attention of the human effort, and shaping the human response. The city, like a bluer or a redder star, is destined over time to evoke new and different perception capacities in urban people.

The effect of these forces is to enable man to perceive things he never saw before, to bring within the scope of his existence whole new creations, and to regard the things he has known in new ways. The content of concepts is being stirred, shaken, and mixed into new formulas. Even the idea of what is useful to man can no longer be regarded as fixed.

In an automated, highly organized, urban epoch, the human capacity to know beauty may turn out to be the quality most useful to the maintenance of sanity. On a crowded and explosive planet the aesthetic wells of the human mind may be the most precious reservoirs of the human spirit. In a day-to-day life of traffic jams, assembly lines, shortened work

hours, and enlarged purchasing power, the cultivation and nourishment of the artistic impulse in every man may be the most practical and promising of all human pursuits.

Indeed, in the context of modern life, the futility of utility as we now see it becomes increasingly apparent. The great revolutions of the 20th century do not have to do solely with the rise and fall of governments, but with the fall of man's traditional view of his limitations, and the rise of a renewed elaboration of his possibilities. Each new discovery cries out for poetic description. We may be the lucky ones. We may be the poets of the human adventure.

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SOME BASIC REFLECTIONS ON COMMUNICATION*

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Last year, in his essay published in a similar volume, Stuart Chase wrote of the desirability of escaping from our talent traps to a vantage point from which we can get a broader view and a more adequate perspective on the world in which we live and on our relationships to it and to each other. I find this general point of view congenial. It is my particular prejudice that the most effective way to escape from our talent traps and to cultivate our relationships to each other and to the world about us is to improve our communicative behavior. The most effective way to improve our communicative behavior, as I see it, is to increase our sensitivity to the communication process as a factor in any situation in which we find ourselves, and particularly in any situation in which we have to deal with significant professional or personal problems.

Problems of communication may be classified by reference to (a) the sender and (b) the receiver, (c) the code, (d) the message, and (e) the situation. These are the factors to which we can give our attention in trying to improve our communicative behavior. It is possible for us to become more effective in communicating whatever we have to con-

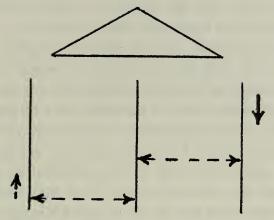
^{*} This presents an extract from a lecture delivered by Dr. Johnson relating more comprehensively to the role of both the manipulation of symbols and the mechanics of communication in modern life.

vey to others and to become more effective as receivers. In my opinion, we can make our greatest improvement, as receivers, by becoming better listeners. Since our listening behavior is, I believe, representative of our more fundamental orientations or philosophies, it follows that when we have improved our listening behavior we have indeed performed a major operation upon ourselves, and one that is very much worthwhile in my judgment.

I believe it is also possible for us to understand better than most of us probably do most of the time the code, or the language, or symbol system which we use in communicating, and its significance in our relationships with others and in what we call our knowledge and understanding. We will conclude, I think, if we study intensively enough the science of language behavior in any of its many forms that our language is a great self-stimulating mechanism. It is a mechanism which, to a large degree and in significant ways, does our thinking for us. It is to our advantage, therefore, to cultivate the best possible language for talking about our language. So far as learning and self-realization are concerned, what we say is usually less important than what we say about what we say. We are limited, of course, in the degree to which we can cultivate or reform our language, or modify our language behavior, but the limits are sufficiently broad to permit substantial improvement.

Regardless of the language we use, however, and regardless of how far we may go in trying to improve it, or in trying to understand it within the limits beyond which we cannot improve it, we can do a great deal to improve the specific messages which we construct by means of the language. We can make them more clear, more dependable, and more interesting, and so more effective for many of our purposes.

Finally, we have to consider the situation within which



An Organization as a Communication Network

we carry on our communications with one another. The situation structures our relationships and conditions our interests, our needs, our problems, and our possibilities of relating to each other. No doubt some of the most important changes that we can make that would improve our society and our lives as individuals are to be made in our communicative situations. For example, in the figure we see a pattern of organization that is representative of most governmental agencies, industrial corporations, universities, or political organizations. It is, of course, as old as Rome. We have not demonstrated very much inventiveness in our patterns of organization. The three vertical lines in the figure are intended to represent departments of an organization, and there are also horizontal levels within each department. At the top of the diagram a headship or directorate of some sort is indicated.

Now, we can say a good deal about almost any organized human situation, from the family to the United Nations, in terms of this simple diagram. It represents an organization as a communication network. In investigating such a network we can study (a) the amount of information that flows through it, (b) the rate at which it flows, (c) the pattern or routing of the flow, (d) the amount of information that is lost as messages flow from one relay station (or person) to another in the network, (e) the degree to which messages become distorted, and (f) the degree to which details are added to a message as it moves through the communication network. What starts out, for example, as a 50-page report at a low level of the organization moves upward at some rate, along some route, becoming shorter, being changed, and winding up on the desk of the president as a 50-word memo—and in the 50-word memo there may very well be some details that were not in the original 50-page report.

The figure serves to highlight the fact of communication blockage or restriction. Messages, for example, tend to flow upward less readily than downward, but in either case there is attenuation, or loss and distortion. Not only does a low-level 50-page report end as a high-level 50-word memo, but also what starts out as a very elaborate discussion in a meeting of the Board of Directors may end as a very short and cryptic announcement to lower echelon employees—or to the stockholders.

So far as we are able to structure situations so as to optimize the amount of information that is transmitted, increase the rate of its flow, make the pattern or routing maximally effective, decrease the loss, decrease the distortion, and minimize the undesirable additions, we are making changes that are calculated to result in more effective communication and more effective relationships among those who are involved in communicative situations.







